

AMERICAN GAS ASSOCIATION MONTHLY



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PROBABLY no single agency has been more instrumental in facilitating the tremendous strides that have been made in the development of modern civilization in this country during the last half century than the enterprise and progressiveness of the men back of the public utility business—the business of supplying street railway, gas, electric and telephone service. From the investors' standpoint these services, when intelligently conceived and executed, provide a basis for investment which, in view of the indispensable and permanent character of the service they render, is second only to the basis afforded by the municipalities themselves.

—H. M. ADDINSELL in the *Review of Reviews*

The Association has opened a western office in Room 1513, 122 South Michigan Avenue, Chicago. A complete file of all the publications and literature of the Association, will be available for the information of our members. Notices of committee meetings and similar information will also be on file. The telephone number is Wabash 6000, Local 321.





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FOR STATEMENTS AND OPINIONS CONTAINED IN PAPERS AND DISCUSSIONS
APPEARING HEREIN, THE ASSOCIATION DOES NOT HOLD ITSELF RESPONSIBLE

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Happy New Year!

Seventy thousand men and women, the human factor in the gas industry, start off on another year of service side by side with a hundred million other Americans, each and every one inspired by the hope and faith that is the heritage of our people.

Success, prosperity, the common goal, is reached by devious ways. Our surest path is through service and good-will. We have much to look forward to, much to accomplish, but we are better equipped for large accomplishment than ever before, for ours is the strength of a united industry, with stronger determination and greater faith.

Let us bring good-will to the task! Good-will in full measure for each other, employers,—employees; and good-will for the public in every act and deed. Then, surely, inevitably, will follow the public good-will for us in a measure equally true.

The New Year is before us. Greetings!

AMERICAN GAS ASSOCIATION MONTHLY

Vol. III

JANUARY, 1921

No 1

Report of Emergency Committee

*Presented Before the American Gas Association at its Second Annual Convention,
Hotel Pennsylvania, New York, November 17, 1920.*

PHILIP H. GADSDEN, Chairman.

SELDOM has there been more emphatic and convincing proof of the influence on public opinion of truly stated educational and informative news matter put before the people through the newspapers of the nation than has been demonstrated by the general publicity campaign of the Emergency Committee of our Association.

While we may not have accomplished all that we hoped to accomplish, nor all that we sometimes felt those in the gas industry were justified, perhaps, in expecting of the Committee, we do feel that the work has been fruitful of real results that not only were of immediate help to the industry as a whole but that will continue to bear more and better fruit as the months pass by.

It is just six months since the Emergency Committee was organized, at a time when an unprecedented crisis in the gas industry demanded prompt and extraordinary measures to avoid consequences of grave and far-reaching importance. The press and public needed

enlightening to enable them generally to view the situation in a broad and unprejudiced light. The Committee's efforts were at once directed to this end and the result is clearly indicated in the press clippings received daily, showing editorial comment favorable to the gas companies and demanding that they, as well as other utilities, be given a square deal and permitted rates that will allow a fair margin of profit to the money invested.

But most important of all, perhaps, in this change of policy on the part of the nation's press is the oft repeated statement that a public utility company is no different from a privately owned corporation and that it cannot live and give a continuous and adequate service to its customers unless it be allowed to get for its product a rate of return that will meet increased production costs and leave a just profit. People generally have so long taken the gas man and the electric light plant and the street car for granted as inalienable community rights, regard-

less of any and all economic conditions, that nothing is of greater moment to utility companies than to be put by the public in the same category as the privately owned enterprise. That it is the public that has shifted its attitude is a certainty, for nowhere is public opinion more quickly felt and effectively reflected than in the editorial rooms of the newspapers of our forty-eight states.

It is equally true that this new and broader viewpoint of public and press has had its strong influence on the many regulatory and public service commissions of the country. The average public service commissioner is a perfectly normal and reasonable man, but he is human, just like all of us, and it is not within reason to expect him always to see the utility company's side of the various problems constantly coming before him unless he has the full moral support of public opinion to back him up. Somebody has said that there are three sides to every question: "Your side and my side and the right side." Now the utility commission, no doubt, often is puzzled to find the fair thing for the company, the fair thing for the public, and the real fair thing to everybody. It is not easy always to decide without the moral support of public opinion. Hence it has become a good deal easier for a gas company to go before a commission and present its case and obtain a rate increase sufficient to permit it to continue furnishing a service so vital to nearly one-half of the population of the United States.

The people slowly are being brought to see that their utility companies are just like other business concerns and cannot do business at a loss, and the consequent moral support of the public service commissions is shown plainly in the fact that of the 1288 rate increases granted to six hundred and eighty-nine companies in the last two years and a half, four hun-

dred and twelve have come in the last eight months, and for the most part these increases were larger and more advantageous to the companies than formerly. There actually have been twelve hundred and eighty-eight rate increases throughout the industry. A good many companies have had more than one, and in most cases the added raise in rates has come within the last few months and was materially aided by a favorably changing public opinion aroused as the people generally realized that their utilities were being menaced by rapidly rising costs against a too rigidly regulated rate.

Records compiled at Association headquarters show that of the twenty largest cities in the United States, based on 1920 census figures, Philadelphia and Milwaukee are the only two that have not given gas rate increases. Even these two cities have benefited, for Philadelphia got away from a 22 candlepower standard to a 530 B. t. u. basis, and Milwaukee got rid of an old order lowering the price.

This moral support of the public, which was at first lacking, was all that was needed to insure a fair and liberal consideration on the part of regulatory bodies for increased rates.

At the same time, there has come a generally broad realization on the part of the public of the position into which the utilities have been forced. The voice of the people is being raised in rapidly increasing strength in the demand that such essential service as that rendered by utility companies be put on a stable, profitable basis through fair and reasonable treatment in the matter of rates. Quite a contrast this, in view of the fact that only a few months ago there was popular clamor everywhere against any rate advance. It would almost appear that the services created and financed by the people themselves to supply to themselves commodities of daily necessity—gas,

electric light and power, the telephone and the street railway—are at last beginning to see the light of a day when they can afford suitable returns to those who believe in their inherent strength.

Right here I want most emphatically to point out that we have made a beginning only. The old public attitude toward the gas company was the result of many years of neglect on the part of the industry. This cannot be overcome in six months any more than the nation can be made bone dry in a year. There must be a vigorous, continuous, intensely cooperative campaign of education to offset the disfavor toward utilities in general that has become almost a second nature to the American people.

Well-sustained, carefully directed and continuous effort is an absolute essential to bring about a deeper and broader appreciation of the values and the necessity of these public services by the great mass of the people who really own and have the directing power over the utilities.

This is by no means a day of miracles, and while a good start has been made, it is only a start. To lag for a moment means to lose all the advantage gained. To stop at all means that we will slip and slip fast back into the mire of public disfavor.

Men in the industry recall, of course, the program outlined by the committee and adopted at the emergency conference in this city on May 26. In the matter of coal supply and shipments, this Committee has taken no directly active part, since this phase of the gas problems was handled through the National Committee on Gas and Electric Service at Washington, with which contact was maintained at all times directly through Association headquarters.

So far as the supply of gas oil is concerned, those companies able to pay the

enormously increased price have not had much difficulty in getting a supply necessary for immediate needs. Not many companies have been able to contract for oil for any reasonable future period. This has been due to the scarcity of the product.

Men in the oil industry, as well as Mr. R. L. Welch, Secretary of the American Petroleum Institute, have at all times expressed their willingness to cooperate with this Committee in any way possible for the general benefit of the gas manufacturers. However, when it came down to actual results, the oil people refused to be pinned down to actual promises.

A conference was arranged in the office of the American Petroleum Institute which was attended by several members of this Committee, representatives of the National Automobile Chamber of Commerce, and the National Society of Automotive Engineers. The oil industry was represented by Mr. Welch. The industry was asked to give definite assurance, without considering the matter of price, that gas manufacturers during the coming winter would be able to obtain at all times a supply of oil. This assurance was not forthcoming. The gas industry was told that there was oil to be had for gas-making purposes if the gas companies could pay the price; that the price was regulated by the law of supply and demand, and that the public, the ultimate consumer, had the right to elect through what channel the products of the oil industry should be consumed. In other words, if the public wishes to burn gasoline in its automobile rather than gas in its kitchen stove, the public is entirely within its economic rights in making such a decision.

The committee of gas men was told that the industry is suffering from a too rigid regulation of rates; that it should free itself from this regulation, thus en-

abling itself to go into the open market as a competitor for petroleum products. But at no time and in no way did the oil people offer any willingness to bind themselves in any way and give assurance that gas companies will be able to get a sufficient oil supply to enable them to go on furnishing so essential a service.

One of the first steps taken by the Emergency Committee was to follow instructions contained in a resolution adopted by the emergency conference that the gas industry protest to the proper municipal authorities of those cities still manufacturing gas on a candlepower basis. Copies of this resolution were sent to the mayor and other officials of thirty-six cities which had not yet adopted the thermal unit. With it was sent a letter setting forth the gas situation and pointing out the economies in the thermal unit system as against the antiquated candlepower standard. Copies of this resolution and of this letter were sent also to every newspaper in each of the thirty-six cities, and much valuable publicity obtained in that way.

One of the next steps to bring the public utility question before the people as a whole was for a committee consisting of Mr. Randal Morgan, of Philadelphia, and Mr. Thomas N. McCarter, of New Jersey, and myself to go to Chicago with the idea of obtaining, if possible, a favorable public utilities plank in the platform to be adopted at the Republican National Convention. I wish to very strongly emphasize the fact that there was no politics in this step. While the committee did not succeed in its attempt, its efforts were defeated only by the close vote of seven to five in a sub-committee of the Platform Committee. This in itself was most encouraging, but it had the greatly added value of putting the public utility question on a national basis for perhaps the first time. The fact that

the committee was going to Chicago for this purpose was very widely published in the newspapers in all sections of the country. During the convention the progress of the committee in its work of framing the utilities' plank also was commented on variously in the public press. Similar steps were taken to put the utilities' matter before the Democratic National Convention in San Francisco, where the committee was represented by Judge Cooke, of Chicago.

The Committee considers the presentation of this public utilities' plank to the Platform Committee one of the most beneficial and constructive pieces of work it has accomplished. When the gravity of the gas and utility situation was explained, the proposed plank was received in a most friendly spirit and won the serious discussion and consideration of men of great prominence, not only in their local communities but who loom large in affairs of a national character. These men were brought to realize for the first time that there was and is a public utility situation and that it is a most serious one—one that affects directly the daily lives, occupations, comforts and well-being of nearly every man and woman in the country.

This public utilities' plank was not the only one to be considered and then rejected. It is a matter of history that all the great economic, social and political questions have had to go through the probationary period of repeated appeals to national conventions before they found any place in the national platform. We feel that this effort was well worth while and should be kept up consistently until not only in national, but in state platforms, there shall be a clear recognition of the intimate relationship existing between public utilities and the communities they serve, and of the imperative necessity to protect and sustain credit of utilities in

order that they may render continuous and satisfactory service.

In the matter of general newspaper publicity, the closing down of the gas plant at Galena, Illinois, was taken up for the reason that it furnished the basis for a generally all around human interest story, inasmuch as Galena is the oldest city in that state and was once the home of General Grant when he was the town tanner. This story was specially covered and prepared with a view to wide distribution. It was illustrated with photographs and cartoon drawings, the whole making a very attractive newspaper feature. This was sent out in the form of a half-page matrix to a selected list of seven hundred and twenty-five newspapers which embraced all the states. The feature was very well received. So far as can be judged from clipping bureau returns, it was published in from two hundred and seventy-five to three hundred papers. In other words, this feature alone brought approximately one thousand columns of publicity. Solely on the basis of paid advertising, this space at the very lowest possible estimate would have cost at the least twenty thousand dollars. But it had the added value in carrying the gas story to the public of being interesting educational news matter. Otherwise it would never have been printed in the news columns.

A series of three cartoons depicting the effect on the gas situation of the high cost of oil and coal; the effect on the oil situation of the increased demand for gasoline, and bringing out the very vital point that the closing down of the gas plant meant shutting off the gas stove in the kitchen, were prepared and sent out in matrix form to another selected list of nine hundred papers. These cartoons were also widely published. A conservative estimate places the number of newspapers that printed these cartoons at

about four hundred, adding about 1,200 columns to our publicity total.

A series of five one-sheet posters telling the gas story were made in colors, and distributed to all gas companies. One set of these posters was sent without cost to the individual company, and others were obtainable at a very moderate cost. The posters were reduced down to the form of stickers, also in color, for office stationery, gas company bills, etc. These also were obtainable by gas companies at a very reasonable charge.

A little booklet of about three thousand words, prepared especially for the gas company employee, has been very well received by the companies in general, and has been ordered in considerable quantity throughout the industry. This booklet was prepared on the basis that as the gas company employee, to the average consumer, is the gas company itself, the employee has it in his power to make friends or enemies of gas consumers. Fifty of these booklets were sent to gas companies free of charge. Other copies were obtainable in any amount desired at the actual cost of printing.

Through the columns of the *American Press*, which is the official organ for the American Press Association and the Western Newspaper Union, which are plate matter syndicates, we have put the problem of the gas industry and public utilities directly before 13,000 editors and publishers. The point was made to these men that community building is one of the most important phases of the local newspaper's duty, and that real community building only can develop through the public services of the locality, and that these public services cannot be properly beneficial unless they have a square deal from the community public. A copy of the matter appearing in the publishers' official organ was sent to gas company

executives and furnished a very excellent opportunity for them to get in touch on the points brought out with their own local newspapers along the lines laid down in a little booklet issued by the Committee when first organized and distributed generally to those who attended the emergency conference here last May.

There has been prepared and is now being sent out to a selected list of 1,500 newspapers, embracing each of the forty-eight states, a series of six small illustrated feature stories. These stories were specially designed to appeal to women in every phase of their daily life from the direct domestic needs to the newer and broader field of political, civic and municipal problems. Two of these have gone out already, and the other four will be sent out for weekly release. Inasmuch as approximately 70 per cent. of gas manufactured is used in various ways where woman is the direct consumer, much good is expected to accrue from this matter. The nature of these features is such that it is thought safe to expect that at least 1,000 of the 1,500 papers will use this series.

Delegates to this convention were asked to make of their proposed trip here a news story for their local papers, and to point out in a personal interview that this is by all means the most important convention the gas industry ever has held, for the reason that the existing situation is such that there hardly is a community in the country that does not face to-day some sort of gas trouble.

I would like right now to impress upon all of you the absolute necessity of making a similar news story out of your return home. Get in touch with your newspapers; tell them what you did; tell them what was accomplished. Each and every one of you constitutes news in your own locality. Do not be afraid of

making full use of your own news value to your own newspaper.

In this connection I want also to say that while the press of the country has been very good to us, and has been very liberal in the space given to the matter sent out by this Committee, there is room for a lot of improvement in the matter of cooperation on the part of the gas company executive.

During the last six months, the Committee has been sending from time to time news releases direct to the gas company executive for him to use in his local newspapers. In the earlier stages of the campaign work there were quite satisfying results. In the latter stages the results have not been so satisfactory. Of course, we all must take into consideration that we have had to compete with a lot of big news. There were the two national conventions. Then came the national political campaign with gubernatorial campaigns in thirty-four states. In such a time as we have gone through in the last six months, political news is always big news, and naturally we have not been able always to successfully compete against this. Another matter entering in was the print paper shortage and consequent high price, with the cutting down of news space in favor of advertising.

But the fact remains that a newspaper essentially is a *news* paper, and no matter what the print situation is, no matter how the ads crowd, whenever there is real news the real news editor is going to print it. You, yourselves, your gas companies, your gas company problems, constitute real news to your home newspaper, and you must not fail to make full use of all matter sent to you by the Committee, and you must not fail to supplement this with your own personal efforts in putting the needs of the gas industry before your local community.

Along the further line of future work there is another, and very important, phase seriously to be considered and treated from an exhaustive standpoint. This is the question of credits. Utility companies, and especially gas companies, find it almost impossible to-day to interest new capital or borrow money on their securities. All facilities within the industry, as well as all available outside, should be brought into full activity with the view of re-establishing a place in the securities' market for gas and utility stocks and bonds. Perhaps an opening wedge may be seen in the present favorable attitude of the public service commissions. At least this constitutes a somewhat favorable sign that in the not far distant future a ray of sunshine may filter through the clouds hanging so heavily over the long despised utility shares. Perhaps, too, there may be hope for the future in the fact that conditions, having for so long been about as bad as they could be, must change for the better.

No effort must be spared to impress upon the American public the fact that unless the credit of gas companies and public utilities generally is restored and they are put in a position to secure the necessary new capital to provide for their needs, the communities served by such gas companies and public utilities must suffer not only in the failure to obtain extensions of service but because of deterioration of existing service. In order to rehabilitate credit of the gas companies it is necessary that they should receive such rates as shall induce new capital to flow into the industry. We should emphasize before commissions and other regulatory bodies this fact, and that the real test of a satisfactory and adequate rate is its effectiveness in inducing the investment of new capital in the industry.

There is still another phase of the situation with which the Committee is ar-

ranging to deal. That is the present downward trend of prices. Even though the price gauge only has just begun to tremble downward there already is cropping out here and there throughout the gas world a demand for lower rates. It is not reasonable to expect that this demand will be ignored. It is wholly reasonable to believe that it will become stronger and stronger as commodity prices generally scale downward. This can be met by the argument that gas and utility companies, unlike the privately owned enterprise, could not meet increased production costs as they gradually mounted from the early stages of the war period. Not until the last year was there any very appreciable realization on the part of the public that the gas companies must have an increased rate to meet a tremendous advance in production costs and commodity demands. In other words, before we were able to get relief we were almost at the point where it wouldn't do any good. Our credit was gone and our reserves wiped out. And not until the public faced the possible loss of so essential a service did we get the relief that the non-regulated industry took for itself years before when rising prices of raw materials forced them to increase the price of their products.

We must be allowed to recover from the terrific losses of those years when we did business at a loss. We must be permitted to overcome the effect of those years in tearing down our credit and destroying our financial reserves. We also must face the fact that there has not been and is not likely to be any material reduction in the cost to us of essential gas manufacturing raw materials. Certain it is there seems no likelihood of any early cut in the price of gas oil, and while coal may ease down somewhat there are many things to be overcome before that

commodity reaches anything like the low cost of four or five years ago.

Just one more point. The Committee, appreciating fully the tremendous value as a publicity and advertising medium of the motion picture theatre, has spent much time and labor with the view of preparing some sort of gas industry film through which our case might be presented to the millions who constitute the "movie" circulation. Work on this project still is going on. Although there are big difficulties to be overcome, we hope soon to be able to announce that we have a satisfactory film and how it can be handled. The chief difficulty lies in obtaining a suitable method of distribution. Several motion picture producing companies are now cooperating with us on this phase of the matter, and it is reasonable to expect that a solution soon will be found.

Upon completion of the reading of the report of the Emergency Committee a motion was made by Mr. Wrightington of Boston that the report be accepted and placed on file.

The President then called upon Mr. Gadsden to open a discussion on the subject.

Discussion

MR. P. H. GADSDEN: Mr. President and Gentlemen: This report covers the activities of the Emergency Committee, and largely of our industry for the last six months. The questions that interest us to-day, I take it, and which are vitally interesting to our gas consumers, are—What is the situation which confronts the gas industry at this time, and what are the problems which must be solved in the immediate future, in order to insure to our consumers a continuous and satisfactory service? I want, therefore, to discuss two or three of the matters which, it

seems to me, should be emphasized from now on by our committee in its publicity work, and by the gas men in their local publicity campaigns.

The overshadowing feature of the gas situation still is Oil. We have made practically no progress in that respect since we met here six months ago. While there are indications that temporarily, perhaps, the supply of oil may be easier, and that there may be some slight concessions in price, the study which I have given to this question and so far as I can gather the judgment of those best informed on the petroleum situation in this country and in the world, leads me to the conclusion that as an industry, we must look forward in the years to come to an increasing scarcity in the supply of oil available for gas companies and steadily increasing prices.

By that I do not mean to say that it is not at all unlikely that during the next twelve months, or for the next two or three years, the pendulum may swing temporarily the other way, and we may be able to get ample supplies at substantially reduced prices, compared with the present, but we are here charged with the responsibility for a great industry which is going to continue to function indefinitely. The responsibility is upon us to forecast the future, so far as we are able to do it, in order that in the future development of our plants and the acquisition of capital to meet the growing needs of our communities, we may properly adjust our operations to the economic principles underlying the industry.

Therefore, it is from that standpoint that I say, speaking for myself, my own judgment, gentlemen, is that the gas industry must exert every effort to reduce, as far as practicable, the amount of oil required in the manufacture of gas. We should make use of every proper means of publicity to impress upon the public

the necessity of permitting us to put into effect low heat unit standard in order that the gas industry may be freed from economic slavery to the petroleum interests.

What is happening now? The gas business is being run at the will and pleasure of the oil man. We had here yesterday a very interesting discussion of the oil problem from one of the best informed men on the subject in this country, a man who has shown every disposition to be helpful to us. I congratulate the petroleum interests of this country in having as their spokesman and representative such a man as Mr. Welch. He came here to give us information on oil conditions, and to tell us—or at least we thought he would—something which would be helpful to us. Mr. Welch's discussion, able though it was, was confined exclusively, so far as I could judge and I heard the same discussion from him before, to telling us where we got off. We asked for bread and we got a stone.

Your Emergency Committee under a resolution passed at our emergency meeting, had a conference with the authorities of the American Petroleum Institute, and made a demand upon them that whatever happened, enough oil should be set aside and segregated to insure that the 8,000,000 gas consumers of this country would be protected in their service so essential to their life this winter, and what reply do you suppose we got? Here we were representing practically 40,000,000 human beings, absolutely dependent for their life, in many cases, upon gas, upon the service that we could render, and what were we told? We were told to go out in the market and bid against the highest bidder, that the only laws which regulated the price of gas oil were the laws of supply and demand; that the oil was going to the fellow who could pay the most for it.

Now, gentlemen, I have no doubt that our oil friends thought that was a full and complete and satisfactory reply. It did not strike me so. I said to them, and I say to them now, we are representing practically 40 per cent. of the population of the United States. To supply the daily needs of these people in respect to gas, we require at their hands an adequate supply of oil. Without that oil, under present regulations, we are powerless to render the public service which the public demands. Therefore, I say to the oil people that insofar as they are supplying a material which is essential to public life, they are just as much engaged in the public service as we are. Where is the difference?

Now, that is what we want to get home to our consumers. Why should we stand the burden of the complaints and kicks and protests against high prices? We want to take our own consumers into our confidence and tell them what is going on. Gentlemen, we have been too tender about it. We have been so affected injuriously by regulations that we have shrunk from any suggestion of an extension of regulatory powers to other people, and what is the result? Why, we have been destroyed in the process.

It needs no argument to prove that in a condition of Society where enterprise is unregulated, at a time such as we have been going through for the last three or four years of extraordinary increases in price, that in such a condition of society a regulated industry is doomed to bankruptcy. That is the law of economics and we ought to have known it when the war broke out. In justice to ourselves and justice to our consumers we should have raised a voice of protest. Why, gentlemen, the gas industry and the light and power industry and the street railway industry, when this war broke out, and this rising tide of prices came upon

us, were just as helpless as a man bound hand and foot and left on the beach at low water, and the tide came in and drowned him. It must be our task to acquaint the gas consumers of this country with these facts. We should point out to them that the gas companies are not responsible for the increases in gas rates; that practically no part of the increase goes to the gas companies, but that we are simply passing it on to the coal man and to the oil man. And yet the petroleum interests tell us that we are subject to the laws of supply and demand? Now, what has happened in the coal business? Most of us had contracts made last spring at greatly increased prices over anything we had ever paid before, but still contracts, and what has happened? Not 50 per cent. of the tonnage under these contracts has been delivered and lived up to. What has become of the other 50 per cent.? Why, we have been forced to buy our own coal in the "spot" market at an increase of 200 per cent., and they talk to me about the laws of economics. Why, it is the law of profiteering that we are up against, not economics. The National Coal Association is to-day issuing statements endeavoring to make an impression on the public mind that the trouble is all over, that the price has dropped, and everybody is going to get all the coal they want, and we are sitting here and saying nothing about it — why they are putting it all over us.

What are the facts? I happen to be a member of the National Gas and Electric Service Committee, of which Mr. Lieb has been such an able chairman for so many years. I attended a meeting of the Committee ten days ago to get a report of what was going on after the last order by the Interstate Commerce Commission. Our reports from, I think, over 3,000 public utilities in this country indicated

that for the first eight days after the revocation of the car assignment order, public utilities in this country got 47 per cent. only of their daily needs, and went into their meager stocks on hand for the other 53 per cent. What was the answer? The answer was that the Interstate Commerce Commission has nothing to do with price, and we were turned over, gentlemen, helpless to the coal man and he came into our office next day, and said — "We will sell you your own coal at \$14.00, \$15.00 and \$16.00 a ton."

What we want to do as gas men is to let our consumers know that that condition is reflecting itself in the gas price. As long as you leave the public under the delusion that these excess prices are absorbed by us, we are not going to get any great amount of sympathy from anybody. When you go home you should be prepared to make a definite statement in reply to the question — What did you do at your gas convention besides elect a president and two or three other officers, and listen to some learned articles on processes of manufacture? The consumer does not care about that, he wants to know when his gas rate is coming down, and you want to tell him — Ask the coal and oil men that question, not us, the responsibility is on their shoulders.

I said to these oil people that they are only one step removed to-day from being in the public utility business; the very fact that they are supplying materials so essential to community life impresses that business with a public interest. I tell you, gentlemen, we have stood this thing too long. We have stood in our own light. Instead of trying to protect the oil man and coal man from regulatory provisions, we should have been busy aligning ourselves and identifying our interests with our own gas consumers.

Recently there was a statement issued by Senator Calder and Senator Edge of

the Senate Committee on Production and Reconstruction, two men who certainly cannot be accused of radical training or trend of views, who had been so impressed by the injustice which was being committed on the ultimate consumer of this country by the extortion in the coal business, that when Congress met, they proposed to see whether the great American public did not have some rights. Now, gentlemen, speaking for myself, I want to say, when they meet, as Chairman of your Emergency Committee, I propose to go down there. (Applause) I propose to say to that Committee, gentlemen, the great gas interests of this country are behind you. It is a disgrace to the civilization of this country that such things can be perpetrated upon the American public. We do not want any further extension of governmental functions. Nobody knows more than we do the baneful influence of it, but as between the coal man and our gas consumer, I stand for the gas consumer.

Therefore, one of the things which our Committee proposes to do is to send from this meeting, a statement along those lines. I take it that in every community in this country the public authorities and our gas consumers are awaiting your return for some information as to what the signs of the times are — What are we going to expect? Are we going to get service this winter? What are the prospects of a reduction in the price of gas? Those are the questions you are going to be asked. Our Committee proposes to answer the question in an open letter to the gas consumers from this Convention, and we propose to place the responsibility where it fairly belongs. We are going to say to the American gas consumer — "Don't ask us, ask the coal man and the oil man when your price is going down, and gentlemen, when they begin to ask that question, I prophesy that you will

see some reductions in price in both oil and coal.

What has been going on in this country? The very fact that we have been forced to sell our product at a fixed price, whereas the material men have advanced their prices, has operated to transfer the values of these various gas plants and other public utilities in our various communities from the communities in which they were originally located, and the communities in which the investments were made, to swell the swollen fortunes of the coal companies and the oil companies.

Speaking electrically, there has been a process of economic electrolysis going on, by which values in a local community are being insidiously and continuously transferred from the community in which they belong, to the treasuries of the oil and the coal man. I say, gentlemen, the time has come for us to fight. We have stood this thing too long. We have taken it lying down, and now let us stand up like men, and fight, and we will get relief. We shall, at least, get the sympathy of our gas consumers, and we will at least free ourselves of the charge which has been made in some quarters that this oil price is a frame-up between some of the big gas companies and the oil companies — let us show them that there is no community of interests between us whatever.

Now, what are we going to do about it? Gentlemen, we have got to get away from the use of oil, so far as possible. While the engineers of our industry are trying to work out improved methods of using lower and lower grades of oil, it is up to us who handle the public relations of these various companies to keep up a steady campaign throughout all this country to further and further reduce the B. t. u. standard. We do not want to get our minds fixed on any particular standard. The danger is to-day that not only the gas man, but the public,

will get their minds fixed on the point that having gone, say, from 600 to 525 B. t. u., that 525 B. t. u. is the minimum. Do not get your mind crystallized on any such figure. My own judgment is that it is a halfway house, that we have got to keep on going lower.

Now, gentlemen, a number of us have been through this experiment since we met here last. We had a most interesting experience in Philadelphia. We have absolutely convinced ourselves, and I think I am safe in saying the great body of our gas consumers, that it is possible to give just as good service at 530 or 525 B. t. u. as we used to give at 600 B. t. u., just as good service. In every state where the standard has not been changed, the gas men should make a determined drive to get it down. We ought to aim for something lower than 500 B. t. u. We may not reach it, and may find it is not possible, but keep your minds in a receptive attitude. We must keep hammering it down, because if we do not, the price of oil climbing as it will, year after year, under the tremendous impetus of the automobile industry will bring the price of gas to a point when the consumer will be unwilling and unable to pay for it. When you go before the consumer, and advocate a reduction in the B. t. u. standard, you want to say to him, — "If you want to keep on getting service, if you expect to cook your three meals a day, if you want to use gas for heating purposes at a price you can afford to pay, you have got to help us cut the standard down."

Gentlemen, I am running over some of these things. I do not want to keep you too long — I get interested in these subjects, and there is a great temptation for a man to take too much time.

Another important and serious question which we have to face from now on, and which is knocking at our door to-day,

is the demand on the part of the public that our rates be reduced. The newspapers are full of price cuts, price reductions, and the unthinking public wants to know why we do not go along with everybody else. That is going to come upon us with increasing force from now on and we must be prepared to meet it. In the first place, we ought to be prepared to show in every plant, how long after these increases affected the operations of a given plant it was before we got our increase in rates. We are having a statement like that prepared for all of our United Gas Improvement plants, with a view of seeing how we can set it up.

My thought is when that statement is made I will turn it over to Colonel Fogg, if he approves of the way it is prepared, then we would like to get similar statements for the industry, so that our Committee can start to inform the public how long it was after these excessive prices reflected themselves in our costs of operation, how long it was before we got relief. If you can bring that home, it fortifies your argument that at least a similar time should be allowed before a reduction is made in your rate.

I would like to have every gas man here when he goes home make up that calculation for his own company and send it in to us. I think it will have tremendous weight. If we can show, for instance, that as an industry, it was a year or a year and a half after these increased prices were put into effect before we got any relief, it will be a strong argument why our present prices should not be disturbed, at least for a similar period.

Gentlemen, how are you going to do these things? There is only one way, and that is by publicity. Publicity is not confined to articles in the newspapers. The province of our committee is not simply confined to sending our releases which may or may not be reproduced in local

papers. What I have in mind is the kind of publicity which comes from the personal contact of the gas man with his own public. We have two great avenues of publicity at our disposal. One is our own employees. How many officers of gas companies in these troublous times which have come upon us have found it expedient and necessary to have a meeting of all their employees to explain their case to them? I know some companies that have done it, and it has been of very great help to them, for the reason that the meter man and the shop man, so far as the consumer is concerned, are the only persons connected with the gas company that he knows anything about. Now, if you educate your own force so that they can answer these questions which arise and discuss them with your consumers, you will have removed a large percentage of the difficulties that face you. Another means of publicity is to talk to your consumers direct. Take advantage of opportunities to meet them in their community associations and their rotary clubs and chambers of commerce. I find in my personal experience that nothing is more effective than talking direct to the gas consumer. It does not require a man trained in public speaking to talk about his own business, and I urge upon you to

supplement the efforts of your Emergency and Publicity Committees by Personal Service, which, after all, is the thing, gentlemen, which accomplishes everything in this world. I thank you for your attention.

THE PRESIDENT: Is there any further discussion of the motion before the Convention?

E. N. WRIGHTINGTON: May I ask whether the gentleman intends to recommend the control of coal and oil prices?

P. H. GADSDEN: I will answer that—I would say no. You will recall that at our last convention a motion was made to that effect and we defeated it. I took part in that defeat. I would do the same thing now. But my purpose, gentlemen, is to let the gas consumers know what the true situation is, and to have the coal and gas oil interests know that conditions are getting to a point where they are going to force the public to act. I am not prepared to say, if the trouble keeps up, I will not change my opinion. I think we have gone far enough, let us see what will happen after this, for a while.

Mr. Wrightington's motion that the report of the Emergency Committee be accepted and placed on file, having been duly seconded was put to a vote and carried.



Pennsylvania Commission Orders New Standard

An order of the Public Service Commission of Pennsylvania, dated December 13, 1920, modifies the rules and regulations pertaining to gas service utilities insofar as they relate to heating standards for manufactured gas to read as follows:

"Each utility furnishing manufactured gas service must supply gas which when tested within a one mile radius from the point of manufacture, shall give a monthly average of not less than 520 British thermal units total heating value per cubic foot as referred to standard condition of temperature and pressure. The minimum heating value of manufactured gas shall never fall below 500 British thermal units. Manufactured gas delivered to the mains under pressures above five (5) points per square inch shall be tested for heating value before compression."

Address of Mr. R. L. Welch

General Secretary and Counsel of the American Petroleum Institute

Delivered at the American Gas Association Convention, November 16th, 1920

MR. WELCH: Mr. President and Gentlemen of the American Gas Association, I count it a great honor to be here this morning. I am very happy about it, just about as happy as would be a recalcitrant landlord who had been dragged before a convention of tenants and asked to explain why he had raised the rent. I have come here without a prepared address.

Your Secretary-Manager called up on Friday and said it was up to me to come over here and talk to you. There are perhaps some advantages about being unprepared, because then one's remarks can be confined largely to attempting to answer the questions which I think you have in your mind, or which you care to ask me.

Your very able President has just said that I would do my best to answer the questions asked me in relation to the oil or gas situation—this offer on my part is not founded upon faith in my ability to answer the questions correctly, but is made in the interest of frankness, of trying to tell the other fellow what the oil man is thinking about.

As I came in on the train this morning, it seemed to me the best way to get at this subject, in the absence of specific questions, was to make an attempt to answer the very questions which I would ask myself if any of you gentlemen were foolish enough to entrust to me the management of any one of your plants—what would be the questions which I would ask myself as a manager of that plant, preliminary to an assignment for the benefit of creditors for a petition in bankruptcy; you will all be thoroughly convinced before all these questions are

asked and answered, where your plant would wind up. These questions are:

1st. What are the fundamental facts as to gas oil?

2nd. Has the company such a schedule of rates as will enable it to pay competitive prices for the commodities and for the money required for the transaction of its business?

3rd. Has the company adequate storage facilities for gas oil?

4th. Is there fastened on the back of the company an old-fashioned and useless candlepower standard for gas? If so, what is the quickest and easiest method of getting rid of that standard?

5th. Are the B. t. u. standards unnecessarily high? If so, how can they be reduced?

6th. Is the plant and its equipment in such shape as to use efficiently the lowest possible "cuts" of oil?

7th. Is every possible effort being made to find out by scientific research the key which will open the door to the use of heavier "cuts" of oil than gas oil, or to abandon the use of oil entirely?

8th. Is the company doing its part, and are all other companies doing their part, to obtain from the public a recognition, not only of the fact that extra efficiency entitles a gas company to more than an ordinary return, as distinguished from an inefficient company; but also are we doing all we can to establish the fact that some additions to plant and to equipment must be made from surplus, if the company is able to obtain from investors the funds necessary for its enlargement?

I will take these questions up in their order, and answer them as briefly as possible. How much time have I—half an hour?

THE PRESIDENT: Go right ahead.

MR. WELCH: I want to confine myself strictly as to time, so that I may not interfere with your program.

First, what are the fundamental facts as to gas oil? It seems to me that they are very simple and they are highly interesting. Gas oil is a fuel. It can be burned in a number of different ways. A man has always been able to build a fire in a particular place, and he has had a large number of materials he could use for that purpose—he could use sticks of wood, or coal, or many other things, in *one* spot.

Man has always been anxious to have some mechanical appliance with which he could move around on the face of the earth, fly in the air, go underneath the waters; something under his control with which he could go when and where he pleased, practically at the speed he pleased.

Man has been all these centuries building fires in *one* place—the first stationary fire's great improvement he ever made in relation to building fires in one place was the gas range, and its efficiency and economy was a step in advance, he has also been trying to do something else, and that is to fulfill what we regarded as a dream twenty years ago; to go about as he pleased. That dream has been solved—man can go when and where he pleases. But the fuel necessary for that purpose includes gas oil—what therefore is the superior use for gas oil—to burn in *one* spot or to burn in moving from spot to spot, if I may put it that way. No fuel other than petroleum under present commercial conditions has this peculiar power

of motion from direct combustion.

We have hardly begun to realize what a tremendous force the automotive engineer has put into the world, how revolutionary it is. Few of us yet realize that the day is near at hand when there will be tractors on nearly every farm, and when the merchant marine of the world will burn oil, until mankind finds some substitute for oil which will enable him to move about at will, the gas industry must be "on its toes" if it will be able to secure a supply of oil, because this new found use for oil will encroach most seriously upon a product which, up to date, has been very essential for the conduct of the business of the gas companies.

The best way to understand this subject, it struck me in coming down in the train, is to forget all about oil companies, forget all about gas companies, and forget all about individuals and think only of it from the aspect of the oil, and of supply and demand; think of it in terms of these intangible objects—the gas stove and the automobile, and the oil supply of the world. Leave the men out of consideration, and think of this economic contest as a struggle between these newly found and newly discovered, and wonderful machines that are moving about on the face of the earth, and their stationary competitor, the gas range, and let us see which in that struggle is likely to get the best of it economically. You cannot control the situation. The oil man cannot control it. The man who is going to control is the man who uses the automobile, who uses the internal combustion engine, who uses the ship, the one who also uses the gas range. He is the man under competitive conditions who will select inevitably the use to which oil shall be put. All of the oil companies and all of the gas companies, and all of the laws which can be made by man in the long

run, will never interfere with what the ultimate consumer will do with oil.

Now let us turn back to the inanimate objects and to the supply of oil. In 1911 there were 700,000 of these moving consumers of oil, known as automobiles, in the United States. I do not know how many gas stoves there were. In any event the number of gas stoves has constantly increased. In 1911, as I say, there were 700,000 of these moving machines in the United States. At the present time there are about 9,000,000 of them!

There were not any tractors in 1911, worth speaking of. I have not the statistics right here for the moment, that is, the increase in the number this year; but when I went back to Iowa the other day to vote the Bolshevik ticket for president, I talked to a farmer, and, by the way, you know that you can get first hand information from farmers. He said—"Yes, I have a tractor. Every farmer in Iowa must have one who owns more than 125 acres of land. It saves me two horses, saves one man; the tractor turns around better at the end of the row than the horses do. It does not have to lay off for lunch, it starts earlier in the morning and it works later at night." I asked: "Have the farmers in your neighborhood got them generally?" He replied: "No, but they are going to get them. I was driven to it. I had to get one because I had two men on my farm who would not work in a proper way, and I could not run my farm without a tractor. Other people are going to do the same thing."

Getting back to my statistics, there were, as I said, in 1911, 700,000 automobiles in the United States. There are about 9,000,000 at the present time, and the end is not yet. There is a little flurry in the automobile business at the present moment, it is no more than a flurry in

my judgment, and the automobiles are going to be ground out, in all probability, by the million, just as they have been in the past. Nobody has heard about Henry Ford shutting down, and I do not believe he is going to. He grinds out about 4,000 cars a day and keeps on selling them, and about two cars out of every three that you meet on the road, or 60 per cent. of the cars, or something of that sort, is a Ford, and I believe the people will keep on buying them because they are worth the money. I am not here as an advertising agent for Mr. Ford, but I am trying to impress upon your minds, the fact, as we believe that the saturation point in automobile building and operation has not yet been reached.

I need a guardian every time I attempt to look through this brief case. (Examining brief case for some documents.) When you come before a crowd like this, you are in the situation of a man stung by a bumble bee—he was thoroughly convinced that bumble bees did not fly backwards, because the one that stung him did not have time to turn around, and I find that I am a victim of that desire for conservation which seems to go through an office force sometimes, for the sheets which I want to use at this time have been very carefully taken from my book, and put somewhere else. So I shall have to rely upon my memory, which is not very good.

In 1911, there were 700,000 automobiles in the United States. The first of January this year there were 7,500,000 automobiles, and the indications are that by the first of January, 1921, there will be approximately 9,250,000 automobiles. In 1911, as I remember the figures, and I will correct this in the record in case my memory is wrong, and it is usually, there were 324 barrels of crude oil available for every automobile in the United States. Just grasp that figure—324 bar-

rels of crude oil in the United States for every automobile in the United States.

Last year there were only 50 barrels of crude oil available for each automobile in the United States—324 in 1911, and 50 in 1919. Now, that ratio, so far as we can tell, and it has been a constantly diminishing ratio—this increase in the demand has been greater than the increase in the supply—has resulted in just one thing—a necessity to squeeze that barrel of oil. Talk about the packers trying to take the squeal out of the pig, why, the oil industry is up against the necessity of taking every last ounce and atom of combustible material from the barrel of oil.

Now, years ago, and I hate to remind you gentlemen of this fact, you did not have to compete for a gas oil—in 1911, 1912, 1913, 1914 and down to comparatively recent times the oil man wanted to pass the gas oil on to you—he was glad to get rid of it. Why? If there was one by-product in a barrel of oil, it was the gas oil, and when you have a liquid by-product, you are up against it economically. If you have a little creek running in your back pasture, it does not cause you any particular trouble if it has a free flow, but if you put a dam across the creek, even if there is only a few inches of water flowing through it, it will not be very long until you have a problem on your hands in the management of your estate—and I know that all of the members of the American Gas Association have estates—until you have a problem upon your hands which will rack your mind and your ingenuity, and the petroleum refiner was in the same condition.

Gas oil was too heavy to be used in lamps, it was not light enough to be used in an automobile, and although you people have to go out and compete for your money, compete for your coal, and

compete for your labor with other people, you did not have to do that with the gas oil, because of the necessities of the petroleum refiner. And the consequence was he was always glad to make a long term contract, because it assured him of an opportunity to get rid of a thing for which he could not possibly provide storage.

Now, that condition is over. It may come about again temporarily—it may come about in certain seasons and during certain months, but broadly speaking, as near as human foresight can judge, the time when gas oil was a by-product of petroleum is over for the simple reason that this constantly increasing demand, on the one hand, of the moving motor vehicles, and, on the other hand, the constantly diminishing supply of crude oil in relation to that demand, have compelled the petroleum refiner to find some way whereby he could make that gas oil into gasoline; and that is precisely what he has found out and is now doing. Furthermore, he is doing more and more of it each day. Therefore, the petroleum refiner is a competitor of the gas company for the supply of gas oil.

The process whereby gas oil is made into gasoline is well-known to you. Gas oil is distilled under pressure and one of the products of such distillation ("cracking") is gasoline. That gasoline is essential for human needs. Past demands would never have been met without cracking and never will be met, so far as we can now see, unless this cracking process is indefinitely extended.

I think perhaps I have consumed most of my time, and I am going to answer the rest of these questions in a word.

The second question, and it seems to me this analysis leads up to the second question, is: Has the company such a schedule of rates as will enable it to pay

competitive prices for the commodities and for the money required for the transaction of its business? There is a way of getting gas oil and there always will be a way of getting gas oil, and that is to pay the *price* for it required by economic conditions. The price of any article is the best allocator in the world.

I am not saying whether that price will be high or low. I do not know. But, if these stationary gas stoves are going to get a supply of gas oil, which is essential, it will be necessary for those gas stoves to have behind them gas companies that can go out in a competitive market and pay a price for gas oil which will take it away from the automobile.

Is not that self-evident? Once you had gas oil segregated in your economic structure, because it was the only thing you were sure of getting at a low price, in fact at your own price. Now, then, you have got to take gas oil and put it with money—that is, with the getting of money, with the getting of coal, with the getting of labor, well knowing that there is a new element of competition, so far as gas oil is concerned. I am going to speak, just for a moment, in regard to rates a little later, and therefore I pass over this question quickly.

The next question I have proposed is: Has the company adequate storage facilities for gas oil? Why should a well managed gas company—I want somebody to answer this question, so far as I am concerned—there may be an answer to it, but I do not see it—why should a well managed gas company live on a hand to mouth basis so far as gas oil is concerned? Why should they? If the gas company is in a metropolitan area, where it cannot store gas oil and has also the peculiar problems that surround a gas company in a great city like New York, I can see the answer to the ques-

tion, but take the average gas companies, scattered throughout the United States, why should they not have adequate storage facilities, which will enable them to go out into the market and buy gas oil at the times, and there may be many such periods, when it is in fact a by-product? Of course, it is not very often a by-product, but there are times, usually when there is a slack demand for gasoline, when it becomes such, and in those times the gas company should be in a situation to go out into the market and bid for gas oil. For example, many times during the winter months the demand for gasoline is slack. The demand for gasoline in the mid-continent field is slack at the present time. Gasoline has fallen off a few cents a gallon. Why under such conditions ought not a well managed gas company to have sufficient storage to enable it to acquire a reasonable quantity of gas oil while prices are low? Why store gas oil in a tea kettle when prices are low, and then feel peeved when prices are high and gas oil practically unobtainable. The busy and provident bee knows something about storage which we could all well learn.

The next question which I have asked is: Is there fastened on the back of the company an old-fashioned and useless candlepower standard for gas? If so, what is the quickest and easiest method of getting rid of that standard? I do not know any answer to that question.

Then I follow with the next question: Are the B. t. u. standards unnecessarily high? If so, how can they be reduced? It must be obvious that when you gentlemen bought this rich gas oil for almost nothing, and pardon me for taking that view of it—and when you could take one gallon of that gas oil and enrich your gas with it—from the oil man's aspect you took his gas oil and diluted it, that is the way it looks to us—you took our rich

stuff and diluted it, instead of using our gas oil to enrich your product.

Now it is perfectly obvious that when this gas oil was a by-product nobody cared very much about B. t. u. standards—scientific study was not necessary in fixing those standards, therefore, it must follow that many of the B. t. u. standards are too high and ought to be reduced.

My next question is: Is the plant and its equipment in such shape as to use efficiently the lowest possible "cut" of oil? That also is self-evident.

The next question is: Is every possible effort being made to find out by scientific research the key which will open the door to the use of heavy "cuts" of oil other than gas oil, or to abandon the use of oil entirely? Committees of the American Gas Association and of the American Petroleum Institute are cooperating on this matter, and every oil company and every gas company ought to bend its efforts to support these committees in their work and see to it that through scientific research everything possible is done to solve this most important problem; and, by the way, but I wish to pledge to every member of this Association, the whole-hearted cooperation and support of the American Petroleum Institute anywhere, any time, day or night, that you may desire us to assist you in trying to get these fundamental facts home to the public whom you serve or to city councils, or to rate bodies, wherever you may be in difficulty. If any fact that we can give you in relation to the gas oil situation or the oil situation generally will be pertinent and of help to you, you have only to call upon us and within the limits of our time, we shall be glad to go anywhere that we can to assist you.

I now come to my last question—I do not know much about either the oil busi-

ness or the gas business, and very little about the law—and therefore I am going to ask a question which I think goes to the foundation of this situation—I have used my half hour and will try to get through in five minutes now—the question is: "Is the company doing its part, and are all other companies doing their part, to obtain from the public a recognition not only of the fact that extra efficiency entitled a gas company to more than an ordinary return, as distinguished from an inefficient company—before I read the rest of the question I want to just drop one word—the railroads of the United States have been in difficulty and the shippers have been in difficulty for years with the lack of transportation facilities. I notice in the morning paper that Mr. Willard has just stated that under the Esch-Cummins law, the railroads at last feel that they have a fair opportunity to develop. The shippers have very little dissatisfaction to express with regard to the Esch-Cummins Bill; a generation of squabbles, seemingly, for the moment at least, has come somewhere near being settled:—the public and the railroads have gotten together.

In that bill there is an important principle—the railroads of the United States are divided into regional zones. In each zone a certain schedule of rates is fixed. The company which renders efficient service gets a return in excess of the general average return gotten by all of the companies in that group. Therefore there is a tremendous incentive toward efficiency on the part of individual railroads.

It seemed to me, just as a layman, and as a man outside of the public utility business, and who has only a superficial knowledge of it, that in general such companies as those represented are always penalized for being efficient; that there has not yet been established that

general acquiescence in the principle that you ought not to take a public utility concern at one place, which is run efficiently, and one at another place that is run inefficiently, and say that the same return shall be made to all these companies alike: that the fellow who is inefficient should get say 6 per cent., the same as the other fellow.

Congress could have provided, in lieu of a joint structure for all of the railroads, a transportation order that the Pennsylvania Railroad should not be entitled to more than a certain return on its investment, and gotten by with it so far as the law was concerned. It could have provided that the Chicago, Burlington and Quincy could not get any more of a return upon the capital invested than the Wabash,—true, there would be trouble as far as the rates are concerned; but I am talking about the constitutional powers which are given to Congress. Would it not have been a rank injustice to these companies and the public, if there had been no recognition of efficiency?

The balance of the question reads as follows: "but also are we doing all we can to establish the fact that some additions to plant and to equipment must be made from surplus, if the company is able to obtain from investors the funds necessary for its enlargements?" I would like to take a week off some time and say all I have in my system upon the question of regulation. In my opinion the first duty of a man on a regulatory body ought to be to find out whether the system of regulation which is in vogue is going to get for the consumer the thing which the consumer needs. (Applause.) That then is the pole star. You know in this world we are spending so much time, especially since Lenin and Trotzky came on the stage, discussing how we shall

divide things up, that we are losing sight of how we shall *get* things. Why, one of these days the economic discussion will be how to divide up one grain of wheat instead of making two grains of wheat grow where one grew before.

From the aspect of an oil man, it seems to me the greatest economic incentive you gentlemen have had has been *merely to protect* your property. You ought to be protected in your property, and you should be put in a position to increase the property, and increase it in such a way as to be able to supply these fundamental demands.

Now, how can any business that has not the fundamental right to build something out of surplus expect to get the money to enlarge that business? If you have no such right, then there is only one way in which the gas man could expect to get the money necessary to enlarge his business, and that would be by false pretenses, because the investor is not going to give you his money unless he knows you will have the opportunity to do something more with it than get simple interest upon that money. Why not recognize the facts!

As I look at it, you gentlemen are servants of society. As I look at it, the spirit of your president's address was certainly magnificent. And you, as servants of society are entitled to go out fearlessly and put your problems before the public. True, the commissions are protecting the public against confiscation, absolutely confiscatory rates; but there are certain economic laws and principles which must be taken into consideration by the public and by commissions. It is a terrible thing—I am not here as your advocate—but it is an awful thing, is it not, that a man must pay as much for a thousand feet of gas as for a dozen eggs? Are you not economic monsters in every

community? The reason why the plant I would represent would go into bankruptcy is this: if any fellow, high or low, said that my gas company was an economic monster, I would call him a short, ugly word, and prove it to the people, especially to the women of his community.

Now, one word, and then I positively am through, on the question of the supply of oil—the future supply of oil. I have no doubt that that question is lying back in your minds. What will the future supply of oil be? The answer is very short, very illuminating and very terse, I do not know. However, there are certain fundamental facts which you should take into consideration. There is more oil being produced at this moment than ever in the history of the world. The oil industry in the last year has done the impossible, because the oil industry has had that commercial freedom which I hope you gentlemen will get. Mid-continent oil advanced from \$2.25 to \$3.50 per barrel, and when that advance took place more and more people drilled for oil, seeking the profits which would be gotten from drilling.

Last year we produced in this country 377,000,000 barrels of oil. This year we will produce somewhere close to 450,000,000 barrels of oil in the United States. At the present time we are producing in the United States oil at the annual rate of 475,000,000 to 480,000,000 barrels. Last year we imported approximately 52,000,000 barrels of oil from Mexico. Last month we imported oil at the rate of about 150,000,000 barrels of oil yearly from Mexico.

Our domestic production of oil at the present time is at the annual rate of about 475,000,000 barrels, and the importation of oil is being made at the rate of 150,000,000 barrels, which means that the

oil supplies of the United States at the present time are obviously running in the neighborhood of 625,000,000 barrels per annum.

Compare that with any previous record, and you will find the oil industry's answer to this deep problem—if one year ago any man had stood up in any oil convention and said either one of two things, he would have probably been hooted out of the convention; one, that in a year the domestic production and importation of oil would be at the rate of 625,000,000 barrels per year; and the other that if such a production and importation were realized could we absorb the oil as fast as it were produced and imported. Yet these importations from Mexico, with the increased domestic production, are being absorbed practically without a tremor. Furthermore, the day is not far distant when there will be a demand for 1,000,000,000 barrels of oil per year, and when that oil will be absorbed. Now, if there had been fastened on the oil industry anything savoring of control, the oil would not have been gotten.

As to the future, no man knows what is in the bowels of the earth. A lot of fellows are predicting that all the oil in the world will be gone in 25 years from now. On the other hand, a lot of people say there is enough of it to last for all time. I do not claim to know anything about it. I think this: I am reflecting the point-of-view of the men most qualified to view the matter, when they say, first, that nobody can prove one way or the other what the facts are, and secondly, the feeling is fundamental in the industry that the oil will be gotten, and the oil man's hunch—I am not giving you my own—is worth while.

At the present time there are some very encouraging things. There is a new field, as you all know, just being developed in Mexico, the Zacamixtle Field. There

are many indications that there is a vast reservoir of oil at that point which will be available for man's needs. Very happily, I think, and without question, the Mid-Continent Field under the impetus of higher prices has shown a very material increase in production. Oil men are out all over the world to get oil. Somebody poked a hole in the Arctic Circle the other day and he got oil, and now I notice by the papers that there are two or three thousand fellows hanging around the edges of some province a few miles away from the Arctic Circle awaiting their turn to walk or run or do something to get to where that oil strike was made. I do not believe that the Lord made this world and put these precious reservoirs in the bowels of the earth without providing enough oil to satisfy human needs. I believe that the oil will be found.

I feel that I have trespassed on your time. There are many things I would like to have said, which no doubt have been forgotten. I have come without any preparation, except trying to read what was going on in your minds, and answering the questions as best I could; and if there are any questions to be asked I will be glad to answer them as far as I can, and if I cannot answer them at the time they are asked, I will be glad to incorporate the answer in the record of my remarks, provided it is agreeable to your president and to you.

THE PRESIDENT: I am sure we have been very much interested in the remarks of Mr. Welch, and we thank him for his remarks. Are there any questions that you desire to ask of him?

W. H. FULWEILER: I think the speaker has indicated that gasoline for the automotive engine is one of the particular competitors of the gas companies, and I was wondering whether he had any information bearing on the probable rate at

which the gas consumption was expected to increase.

R. L. WELCH: I do not know how correct the figures are, but the estimate is that we will have about 12,000,000 automobiles in the United States by the first of January, 1922. If that be true, nobody can tell just where the oil is going to come from, but it is going to come. But it will take a lot of gas oil. That is the nearest I can come to answering that question. Furthermore, if you take this fact into consideration—we have now 9,000,000 automobiles, and we are barely meeting the demand. Gasoline stocks on the first of September, 1920, were the lowest they have ever been in the history of the oil business, when you take into consideration the number of consumers who are asking for gasoline. Let that remain in your mind. September 1st of this year gasoline oil stocks and crude oil stocks were the lowest despite all this production; and then add 3,000,000 more automobiles in the course of a year or 18 months, and you have got as near as anyone can get to guessing the demand for the next 18 months.

W. H. FULWEILER: You spoke of the number of automobiles, but not of the consumption of gasoline. The reason I speak of that is the fact that you divide the gasoline production or that used in the United States by the number of automobiles, and by your figures it is apparent that the amount of gasoline available for automobiles has apparently been going down very rapidly, and yet taking it by and large, except in certain portions of the country, everyone has had all the gasoline they wanted. Does it mean, as the number of automobiles increases very rapidly, that it is caused by the preponderance of the type of car that uses much less gasoline per year than the car that we have had in the past, and is it fair to

say that should the number of automobiles increase by 40 per cent., that the amount of gasoline consumption will increase by 40 per cent.; is it fair to assume that that may be only 20 per cent.?

R. L. WELCH: You have me lost in the woods on that question, but if I grasp the situation my answer is this: The number of trucks is increasing very rapidly and they consume more gasoline than the ordinary passenger car. I do not know what the ratio is, but it is possibly in the neighborhood of three to one. The consequence is that every time you add a truck—and truck figures are included in these 9,000,000—you are adding to your automobile figures the equivalent of say three passenger cars. That is your first problem, and the truck is here to stay. Therefore, it increases the gasoline consumption.

On the question of efficiency—and this is important—and you gentlemen should know it—the American Petroleum Institute is cooperating with the National Automobile Chamber of Commerce and the Society of Automotive Engineers in an attempt to point the way toward a more and more efficient motor, which undoubtedly will come if the price of gasoline continues to extend. There has been no reason in the past for this improvement; gasoline has been so cheap that there has been no reason why the American engineer should exert himself as much as he can to save gasoline. The gasoline cost has been such an unimportant factor in the operation of an automobile that these improvements have not been made, but I believe that we are at the opening chapter of a new era in automotive construction, brought about by the increasing price of gasoline. Have I answered your question?

W. H. FULWEILER: No, what I want to get at is if we have required 625,000,000 barrels of gasoline during the past

year, how many million barrels of gasoline are we going to need in 1925 or say in 1922?

R. L. WELCH: I do not think anybody can answer that question. No one can tell us how much gasoline we will need in 1925, and the more authoritative anybody made his statement of how much gasoline we will need in 1925, the surer I would be that he was wrong.

W. H. FULWEILER: Can you give us the quantity of gas oil it takes to make a gallon of gasoline?

R. L. WELCH: I am not an oil refiner. It would depend on the process used, and the price of gas oil as to what you get there. There are a lot of commercial factors entering into the situation. If that is of interest to the members of the American Gas Association, I will be glad to collect the data from representative refiners, because I do not believe there is a general average on that subject.

W. H. FULWEILER: The Gas Oil Committee of the Association would be glad if they could get some general information of that kind.

R. L. WELCH: I will do everything in my power to help the Gas Oil Committee.

W. H. FULWEILER: Is it known whether there is sufficient still capacity to take care of the gasoline?

R. L. WELCH: I do not think there is enough still capacity of any kind in the United States to take care of the prospective demand for gasoline. You see the statement made everywhere that we have too many refineries—too large capacity. We have too many refineries in the wrong place, and maybe we have too many refineries in relation to the supply of crude oil; but we have not too much capacity in relation to the prospective demand, that is a complicated answer; but that is the best that I can give.

W. H. FULWEILER: Have you any idea as to the character of the so-called fuel oil, gas oil, and bunker oil or residuum oil to be exported? We export apparently at the rate of 45,000,000 barrels a year. Do we send out again any considerable part of the Mexican oil which we bring into the United States, the so-called fuel oil, manufactured from the United States crude oil?

R. L. WELCH: You are getting into a complicated question, and I will try to give as simple an answer as I can. We are exporting gasoline and kerosene and a product known as naphtha, and exporting it at a much less rate than we are importing the same products in Mexican crude. The United States to-day is on an importing basis so far as the oil situation is concerned. When anybody talks to you about the oil of the United States going to the consumer, abroad, tell him to get down to the minute on that question, because aside from seasonal surpluses, or the surplus of a particular product, the absolutely necessary exportation, little oil is being exported from the United States at the present time.

We are importing oil from Mexico at the rate of 150,000,000 barrels. Broadly speaking, two-thirds of that is light oil. It contains 10 to 20 per cent. of gasoline, depending on the process—in the straight refining from 10 to 12 per cent., and much more can be gotten by improved processes.

W. H. FULWEILER: The only point I want to make is that it appears the gas industry can utilize so-called topped Mid-Continent, and the bulk of the crudes as gasoline. I wonder whether that is the sort of material being exported under the heading given in the Department of Commerce, in their figures, as gas and fuel oil.

R. L. WELCH: I do not know; I am unable to follow the governmental de-

partments on these matters. I would have to look them up and go down to the Customs Office, and examine the invoice. The reason I make that answer is simply this—for export purposes, and there is a movement on foot to correct it, many of the things are not accurately designated, and that is by reason of commercial customs which have existed for many years which no doubt will be corrected in the near future.

HAROLD ALMERT: I saw a statement of a Trans-Atlantic steamship company where it was figured out if instead of using coal they were wholly on an oil basis, because of the increased capacity of freight, due to the space occupied by the coal, and the number of men required for stoking, etc., where they earned last year 9 per cent. return on their capital, they would have earned 28 per cent. if their freighters were all equipped with oil, and in that way the mercantile marine would become the biggest bidders against the gas industry for fuel oil. Can you tell us how important that competition for the supply would be?

R. L. WELCH: No, I cannot, so far as the future is concerned. I have the feeling, in answer to that question, that fuel oil in a certain restricted sense is going to remain a by-product for years to come. That may be a wrong hunch. There are many reasons and arguments the other way, but I am reflecting what I regard as the best opinion in the oil industry, in answer to your question, and if there is going to be a by-product, it is going to be fuel oil, and it is probable that it will be a by-product for a number of years to come.

R. A. CARTER, JR.: Are there any considerable quantities of untopped crudes used in the United States?

R. L. WELCH: Not considerable in comparison with the total amount, but in

California, for example, there are many cheap crudes that are not fit to be topped. You must remember that the western coast has no fuel practically speaking, except fuel oil, and the industries and railroads of practically all the territory west of the Rocky Mountains are using fuel oil; and that there is a most acute commercial situation developed by reason of the inadequacy of the fuel oil supply west of the Rockies to meet the commercial demands of that section. There has been a shortage of gasoline in California. Furthermore, the Pacific Coast is facing a tremendous problem in relation to the shortage of fuel oil. The consequence is that nobody would be warranted in giving an off-hand opinion as to how much fuel oil in California ought to be subjected to cracking, because the people must have the fuel oil on the coast for some years to come. They have not the coal except at prohibitive prices.

E. H. EARNSHAW: I would ask whether Mexican oils are suitable for cracking?

R. L. WELCH: I wish I knew. I have this impression about the matter—in the first place, that the gasoline content of Mexican crudes can be brought up to perhaps 20 per cent. or perhaps a little higher, and that that can be done and is being done on a limited scale by perhaps a few companies, and that, therefore, a great deal may be worked out of the Mexican crude. However, in speaking of Mexican crude, bear this important fact in mind—whether it is topped or cracked, something must be done with the residuum, and the question whether you can top Mexican crude or crack it is not just a theoretical or scientific question; it is: what in the world will you do with what is left? Mexican crude is very low

in gravity, and when you take off too much of the lighter fractions, you have left a very heavy product for which under present conditions you cannot obtain a price which would commercially justify taking off all the light ends.

MR. WILLIEN: I would like to ask what are the prospects of the shale deposits in Wyoming relieving the oil situation and if they may be expected to relieve the situation, at what price crude oil would have to sell in order to stimulate the production of oil?

R. L. WELCH: I know that I have trespassed on your time. Nobody is, at the present moment, so far as I know, getting shale oil and developing it on a commercial basis. There may be somebody who is using it for some special purpose, but I am talking about it in relation to gasoline, kerosene, and fuel oil, and no one, so far as I am informed, has done it; and when it will be done I do not know, but it is never going to be done, in my judgment, by a lot of people floating stock and promoting the shale oil companies.

There are potential sources of petroleum in the world, like oil sands and things of that sort, that the promoter has not yet discovered. There is no practical commercial answer to that question yet.

It has been a great pleasure to be with you, and I wish to thank you for your very great courtesy, and assure you of our standing offer to cooperate with you; and we hope that we can be helpful to the American Gas Association and the industry.

THE PRESIDENT: As I have said, we are greatly indebted to Mr. Welch for his attendance here this morning, and the extremely interesting address he has given us.

Report of National Committee on Gas and Electric Service

J. W. LIEB, Chairman

November 13, 1920.

The American Gas Association.

The National Electric Light Association.

The American Electric Railway Association.

GENTLEMEN:

THE National Committee on Gas and Electric Service desires to present to you a brief summary of the coal situation as affecting public utilities since the cancellation of Interstate Commerce Commission Service Order No. 16 on October 15, 1920, and the substitution for it of the present Service Order No. 21. The new order differed from the previous one, in that under No. 16 all public utilities were permitted to have assigned cars placed at the mines for the loading for them of coal in sufficient quantity to maintain their daily operations, but not allowing the priority assignment of cars for any additional coal for storage or for the accumulation of a reserve. Service Order No. 21 was intended to cover only emergency cases and was to be invoked either specifically in individual cases, or generally, as the seriousness of the emergency and its character might require.

Right from the very beginning the issuance of Service Order No. 21 caused considerable confusion on the part of all three parties interested, namely, the public utilities, the railroads, and the coal producers, both the railroads and the coal producers evidently being under the impression that all that it was necessary for the public utility to do to obtain assigned cars was to renew their applications. Such applications and assignments were awaited by both the carriers and coal operators, and in the meantime no public utility shipments were made out of the

regular car distribution, as had been done previous to the issuance of Interstate Commerce Commission priority orders on July 19. When the matter was entirely cleared up it developed that shipments to public utilities had so diminished that in many cases their operations were seriously imperiled and quite generally their meagre reserve stocks were being depleted to an alarming extent.

At the request and with the consent of the Interstate Commerce Commission, at the time Service Order No. 16 was cancelled, and No. 21 became effective, a Cooperative Committee was formed consisting of a representative of the American Railroad Association, a representative of the National Coal Association, and a representative of the National Committee on Gas and Electric Service, to endeavor by cooperation, if possible, to relieve all serious situations where applications for assigned cars were made through the National Committee on Gas and Electric Service. Every effort was to be made for these three parties involved to obtain sufficient coal for the public utilities without invoking the provisions of Service Order No. 21, and should the time arrive when the situation appeared to be serious enough in any particular case it was to be brought to the attention of the Interstate Commerce Commission in the expectation that it would then, acting under the provisions of Order 21, issue orders for car assignments to cover the particular case. On November 1, a tabulation was submitted to the Interstate Commerce Commission, presenting figures which had been furnished by fifty-one public utilities, repre-

senting the gas, electric light, power, and electric railway industries from various sections of the country, showing that for the period October 15, to 23rd, shipments for current daily requirements had diminished by 53 per cent., the coal necessary to operate the plants from day to day. The total daily tonnage required by these fifty-one companies was 43,000 tons, and as the total daily tonnage required to operate public utilities throughout the country is 150,000 tons, it will be noted that the figures obtained represented a little less than one-third of the total tonnage required for the entire public utility service.

However, notwithstanding the serious situation disclosed by these appalling figures the Interstate Commerce Commission did not view the condition with any great alarm, and after analyzing the tabulation they definitely refused to consider the situation serious enough to invoke Service Order 21 and authorize the placing of assigned cars. They stated that these figures would undoubtedly be greatly improved when the cars which had been in use to furnish the Northwest with its winter supply of coal were made available through the prospective cancellation of the Northwest priority order. Figures were again presented to them covering the following week ending October 30, at which time a new survey showed that shipments for that week had been short 47 per cent. of the daily requirements of the fifty-one companies already tabulated, showing but a slight improvement—about 6 per cent. over the previous period, and still the Interstate Commerce Commission refused to consider the occasion serious enough to grant the priority assignment of cars. Additional figures are now being presented to them covering the later weeks ending November 6 and 13th. This is being done so that the Interstate Commerce Commis-

sion can have before them an accurate picture of the public utility situation and make available to them all of the information procurable by the National Committee on Gas and Electric Service which bears on the serious situation that is being so urgently impressed upon them by utilities from every part of the country.

As the Interstate Commerce Commission had refused to consider the situation serious enough to grant assigned cars, the National Committee on Gas and Electric Service felt it incumbent upon them to notify all public utilities of the situation as it existed on November 8, and on that day a letter, copy of which is attached, was dispatched to every public utility company throughout the country advising them of the situation. Copy of a telegram is also attached, which in November 5 was sent to the Interstate Commerce Commission from the National Committee on Gas and Electric Service, then in session in New York, calling their attention to the gravity of the situation and urging upon the Commission the immediate application of remedial measures.

In the meantime the Cooperative Committee above referred to, consisting of a representative of each one of the three interests involved, the railways, coal producers, and public utilities, have been continuing their cooperative efforts and using every endeavor to take care of specific emergency cases brought to their attention with a view to maintaining shipments sufficient for daily requirements and avoiding any complete shutdowns. In some sections there has been a fairly good car supply and relatively little ground for complaint; in other sections, particularly on the Louisville and Nashville Railway, where a large amount of gas coal originates, the situation is most serious, owing both to a deplorable lack of car supply and an inadequate trackage system. This is further complicated by

the immense tonnage that moves over the rails of this carrier in private cars, thus adding to the congestion.

Weather conditions have thus far been altogether favorable and if they continue will aid in relieving the situation. However, should severe weather conditions suddenly appear the outlook would be most unsatisfactory, as stocks are very much depleted, where they have not already altogether disappeared, as for months past the only coal received by public utilities was that required for daily operation on a hand-to-mouth basis.

It must be admitted that confiscations by the railways of coal consigned to public utilities have been greatly reduced since the Interstate Commerce Commission notified the railroads that they must not confiscate coal destined for utility operation. There are some exceptions but in most of the cases, when fully investigated, it develops that the fuel confiscated was being hauled in "bad order" cars and it was better to use the coal contained in a car in crippled condition than suffer the delay in having it transferred.

One gratifying feature of the entire situation is that production of bituminous coal in the United States has been maintained at a high figure for several weeks past and this satisfactory production has increased the availability of "spot coal" which is being reflected in considerably reduced prices and a general softening of the market, and it is to be hoped that before long prices will be still further reduced. This will afford some relief to public utilities who had not contracted for their full requirements and who were at the mercy of the spot market for all or a considerable amount of their requirements, and it has been stated by the Interstate Commerce Commission as a justification of their persistent refusal to order assigned cars, that the market

would probably assume normal conditions more quickly if assigned cars were not authorized.

During the week ending November 13, the National Association of Railway and Public Utilities Commissioners, held its annual convention in Washington, bringing together representatives of the Public Service Commissions throughout the country. The National Committee on Gas and Electric Service felt that it was its duty to bring to the attention of this Convention while in session, the extremely serious and dangerous condition of coal supply as applied to public utilities, and a letter was addressed to them, copy of which is herewith attached. This letter was intended merely to call the Convention's attention to the deplorable situation, and did not request or suggest any specific official action. When the matter was brought up, however, it created considerable discussion and Interstate Commerce Commissioners, Clark and Aitchison, who were present, both took occasion to address the Convention, taking a much less definite position than was to be expected from public officials who must realize what the public utilities of the United States are confronted with and how serious and disastrous would be the consequences to the public of a suspension of the services which they render. It was represented by these Commissioners that the public utilities were endeavoring to use the Interstate Commerce Commission to enforce their coal contracts, while the real situation is that there is no dispute whatever regarding the coal contracts. The coal producers show their willingness to ship if they can get sufficient cars, either through distribution or by assignment. They do not dispute these contracts and no questions of the nature are involved, but the entire matter resolves itself into the fact that the Interstate Commerce Commission is

merely being requested to invoke the provisions of Service Order 21, which they themselves promulgated, in order to furnish sufficient cars at the mines to ship public utilities coal which they had already bought to cover their requirements. Another statement made was that the public utilities, notwithstanding the fact that they had contracted for their coal, should now go out in the open market and buy spot coal to make up for lack of deliveries due largely to inadequate transportation facilities and pay the prevailing excessive prices, regardless of the fact that they had already covered themselves for their requirements by proper contract. It is a fact, however, that the only real obstacle confronting them in the way of getting these contracts filled to meet their requirements is lack of carrying capacity of the railroads, over which the Interstate Commerce Commission has complete and absolute jurisdiction.

On the following day a place on the program was given the Secretary of the National Committee on Gas and Electric Service, and the situation as it existed was presented to the Commissioners by him and discussed by the Convention, and resulted in the introduction of a resolution calling upon the Interstate Commerce Commission to arrange to place sufficient cars at the mines to carry the public utility coal supply necessary for their daily operation, and thereby prevent an impending calamity.

The utilities now find themselves at the very gates of winter, generally speaking, with little or none of the usual storage or reserve fuel supplies accumulated and in many cases with hardly enough fuel obtainable to carry on each day's operations.

In your behalf we have placed the facts conservatively and seriously before the Commission and the responsibility for providing against disaster now rests with them as they have both the authority and

power to provide the remedy, which they had wisely exercised in the emergency in promulgating the life saving order 16, without the liberal application of which many utilities would have suspended service a few months ago.

It has been the unvarying experience of utility operators for many years past that it is unsafe and dangerous for a utility to enter the winter season without an adequate reserve supply of fuel in storage sufficient to carry it for at least four to six weeks as a protection against uncertain deliveries due to interruption of transportation owing to winter weather, labor difficulties at the mines and on the railroads, traffic congestion, freezing of coal in the cars and terminal labor and towage difficulties all of which are invariable accompaniments of every winter season.

The additional duties devolving upon the National Committee on Gas and Electric Service by the arrangements made with the Interstate Commerce Commission to have us receive all applications and compile all statistics and information regarding the coal supply for public utilities, has made it necessary to increase our office space and clerical staff, and efficient and adequate assistance has been brought into the organization to carry on this work. Up to the present time over 3,000 applications for relief have been received from utility companies, together with questionnaires, and the task of tabulating and caring for this correspondence has been considerable, and it is very necessary that complete information should be in the possession of the National Committee on Gas and Electric Service as promptly as possible after requests for data have been sent out.

It is probable that immediately upon the convening of Congress we shall receive requests for all the information

which we can obtain as to the coal supply necessary for the operation of the public utilities, the required reserves to be carried in storage, etc., as it seems inevitable that some legislation will be proposed looking forward to the elimination of some of the difficulties which have been experienced in the protection of the coal supply necessary to maintain the service of the public utilities.

(Signed) J. W. LIEB,
Chairman.

Letter of Nov. 8th to Gas Companies.

AT a meeting with the Interstate Commerce Commission on November 1st, the National Committee on Gas and Electric Service furnished figures showing that during the period of October 15th to 23rd, SHIPMENTS of coal on contracts from mines to a group of public utilities representative of the gas, electric light and power and electric railway services in various states, had diminished to an average of fifty per cent. of their current daily consumption and advised the Commission that it now seemed necessary to resort to the use of assigned cars, as provided for in Service Order No. 21, as such a decrease in shipments was sufficient indication that not only does an emergency exist in many individual cases but with a continuation of these decreased shipments the emergency was general and should have immediate action or the public would very shortly be denied gas, electric and street railway service.

The Commission, however, declined to concur with the National Committee on Gas and Electric Service and did not view the situation with such alarm as to consider an emergency had been created rendering it necessary to authorize the placing of assigned cars for public utilities loading. The Commission felt that

the figures presented did not reflect the improvement in car supply which they considered would be apparent in subsequent periods as a result of the suspension of Service Order No. 10 (Lake Order), which had been in operation for the relief of the Northwest, ensuring that section a winter supply of coal before the close of navigation.

Our Committee is therefore arranging to furnish figures of shipments for later periods in order to keep the Interstate Commerce Commission fully informed as to the condition of the public utility coal supply, realizing the responsibility that rests with the Interstate Commerce Commission should a national calamity ensue due to the failure of public utilities to get the protection provided for them under Service Order No. 21, and which the Interstate Commerce Commission decline to invoke in the present emergency. It will therefore be necessary to have information from you each week (as per form herewith enclosed) as to what your SHIPMENTS (Not receipts) have been each day so that the necessary comparisons can be made by the Interstate Commerce Commission.

Figures later obtained and presented to the Interstate Commerce Commission of SHIPMENTS of coal from the mines for week ending October 30 showed that there was consigned to public utilities, but 54 per cent. of their daily requirements, or but a slight improvement over the period ending October 23, still further depleting the coal reserves of the public utilities, where there is any storage.

This information is conveyed to you in order that you may know that every argument is being brought to bear on the Interstate Commerce Commission to have them realize the seriousness of the present situation and that unless sufficient cars are furnished for the movement of

coal to public utilities their service to the public must of necessity be curtailed or suspended.

Respectfully,

NATIONAL COMMITTEE ON GAS AND
ELECTRIC SERVICE.

November 8, 1920.

Telegram, November 5, 1920.

INTERSTATE COMMERCE COMMISSION,
Washington, D. C.

The National Committee on Gas and Electric Service representing public utilities throughout the country engaged in serving the public with gas, street railway and electric light and power service has considered the statements made to it by its committee members and the report submitted to it by its Secretary, Mr. G. W. Elliott, of the results of the operation of the cooperative process under the new order twenty-one which has taken the place of Order Sixteen under which car assignments to public utility companies had previously made their operations possible.

The Committee respectfully urges that the data submitted to it of the operations during the week October Fifteenth to Twenty-third shows diminished coal shipments amounting to fifty-three per cent. of their daily requirements and confirms its belief that the present situation is intolerable and seriously jeopardizes the continued operation of the public utilities particularly in view of their rapidly diminishing and meagre reserve supply with which they are facing the serious situation which arises regularly every winter due to transportation interruptions, labor disturbances, embargoes, snow storms, etc.

The National Committee on Gas and Electric Service respectfully urges that steps should be taken at once by the Interstate Commerce Commission to secure

immediately a sufficient supply of coal to protect the vital public services which under present conditions we find are now seriously menaced.

We would urge that the Interstate Commerce Commission arrange at once for the providing of an adequate supply of cars at the mines to secure to utilities at this time a sufficient and dependable supply of coal.

The experience of managers of utility properties leaves no question of the imperative need for the accumulation of adequate fuel reserved before winter sets in which period of emergency now confronts us and we urge that it requires your immediate and urgent action.

NATIONAL COMMITTEE ON GAS & ELEC.
SERVICE.

J. W. LIEB, *Chairman.*

Letter of November 11, 1920.

HONORABLE WALTER A. SHAW, *President,*

National Association of Railway and
Public Utilities Commissioners,
Washington, D. C.

Sir:

THE National Committee on Gas and Electric Service feels it incumbent to call the attention of your honorable body while it is in session, to the gravity of the coal situation as affecting the operations of public utilities generally throughout the United States.

The Interstate Commerce Commission realizing the hazardous condition which the public utilities were in, and acting with the authority conferred on them by the new transportation law, made effective July 19, 1920, a service order which authorized the placing of assigned cars at the coal mines for public utility loading sufficient to take care of the daily requirements, but not for storage, and by this action protected the public in ensur-

ing the utilities regular shipments to provide for daily service to the public. These priority orders were continued until October 14 when they were superseded by the present service Order No. 21, which order was intended to be invoked only where emergency was shown to exist and that every effort was to be made to get the coal they had previously bought and contracted for without recourse to Order No. 21.

Since that date over three weeks have elapsed and all efforts to obtain their coal have proved futile and the result of such failure is depicted in the accompanying tabulation showing that after the suspension of Order No. 16 on October 14 and without the assistance of Order 21, the shipments from October 15 to the 23rd, showed a falling off to 47 per cent. of the current daily consumption of a representative group of utilities; a further survey made for week ending October 30 showed the shipments to be only 53 per cent. of daily needs, thus further depleting the meagre reserve stocks of the utilities and the dark outlook of facing winter conditions with the prospects of possible curtailment or suspensions of service to the public.

It is therefore with these conditions confronting the public utilities, that we feel it our duty to take the opportunity of bringing it to your attention in order that you may be made fully aware of the calamity that is impending unless some action is taken to provide carrying capacity at the mines to ensure daily operation of public utilities in the discharge of their obligations to the public.

A word as to the functions and activities of the National Committee on Gas

and Electric Service may not be amiss. Our Committee was organized in May 1917 at the request of the Council of National Defense to come to Washington and cooperate with all Government branches and offer the resources of the public utilities in the great effort to win the war, and our assistance in the rapid construction of cantonments and arranging for the necessary gas and electric or transportation service, of the efforts of the gas utilities to produce to the maximum toluol so important to the success of our army, of the additions to existing utilities in order to render further service to munition plants and others making war material, these are but a few of the many voluntary activities rendered by the public utilities in the late emergency and since the conflict was brought to an end we have continued to maintain our work as a cooperative Committee in our efforts to protect the successful operation of public utility service to the nation.

Our Committee is composed of members appointed by the American Gas Association and the National Electric Light Association, which two Associations represent approximately 85 per cent. of all the utilities furnishing these classes of service, and all its expenses are borne by these Associations, although the services of our Committee are not confined to the above membership but are rendered to non-members as well, and all municipal and other plants furnishing similar public service. We are also acting for the American Electric Railway Association or any non-members in that industry.

Very respectfully,
(Signed) G. W. ELLIOTT,
Secretary.

Service Order No. 21 of the Interstate Commerce Commission was set aside at midnight on November 24, because it appeared, to use the phraseology of the amendment, "that the emergency which caused the Commission on the eighth day of October, A. D., 1920, to make and enter this Service Order No. 21 has in general been measurably relieved."

We hope the Commission is correct in this view, but the information in our possession prior to November 24 and that received subsequently is not reassuring. Every effort has been made, both through the National Committee on Gas and Electric Service, and by direct appeal, to induce the Interstate Commerce Commission to continue priority of car assignments for public utility coal and to make Order 21 more effective and helpful to the utilities, but the Order has been "vacated and set aside." Obviously, unless early developments conclusively show that the coal situation has in reality been measurably relieved, the first severe winter weather may bring the authorities face to face with their responsibility.

Obituary

It is with deep regret that we record the death of Mr. Charles F. Bryant, who, for the past eleven years has been the auditor of the Westchester Lighting Company.

Mr. Bryant entered the gas industry as an employee of one of the Illinois utility companies, later became identified with the U. G. I. Company of Philadelphia as one of its traveling auditors and was afterwards employed by the Connecticut Railway and Lighting Company. For some time he served in the Accounting Department of the Consolidated Gas Company of New York, and in November, 1909, was appointed auditor of the Westchester Lighting Company.

In the death of Mr. Bryant is lost a faithful and valued employee and a kind and helpful friend. Mr. Bryant is survived by a wife, a daughter, and a brother.

Associations Affiliated with A. G. A.

Canadian Gas Association

Pres.—C. S. Bagg, Montreal.
V.-Pres.—E. H. Caughell, St. Thomas, Ont.
2d V.-Pres.—Col. D. R. Street, Ottawa, Ont.
Sec.-Tr.—G. W. Allen, Consumers' Gas Co.,
Toronto.

Conv., 1921.

Empire State Gas & Electric Association

Pres.—H. W. Peck, Mohawk Gas Co., Schenectady, N. Y.
V.-Pres.—C. G. M. Thomas.
Treas.—E. H. Rosenquest.
Sec.—C. H. B. Chapin, Grand Central Terminal, New York, N. Y.

Illinois Gas Association

Pres.—W. M. Willett, Aurora, Ill.
Sec.-Tr.—R. V. Prather, DeWitt-Smith Bldg.,
Springfield, Ill.

Conv., 1921.

Indiana Gas Association

Pres.—W. W. Goodrich, Winchester, Ind.
V.-Pres.—J. D. Forrest.
Sec.-Tr.—E. J. Burke, Citizens Gas Co.,
Indianapolis, Ind.

Conv., 1921.

Iowa District Gas Association

Pres.—W. H. Taylor, Omaha, Neb.
Sec.-Tr.—H. R. Sterrett, Des Moines Gas Co.,
Des Moines, Ia.

Conv., 1921.

Michigan Gas Association

Pres.—J. W. Batten, Detroit City Gas Co.,
Detroit, Mich.
Sec.-Tr.—A. G. Schroeder, Grand Rapids Gas
Light Co., Grand Rapids, Mich.

Conv., 1921.

Missouri Association of Public Utilities

Pres.—J. H. Van Brunt, St. Joseph Railway,
Light, Heat & Power Co., St.
Joseph, Mo.
Sec.-Tr.—F. D. Beardlee, 315 N. 12th St., St.
Louis, Mo.
Wiley F. Corl, Chmn. Affiliation Com., Mexico
Pwr. Co., Mexico, Mo.

New England Association of Gas Engineers

Pres.—W. F. Norton, Nashua, N. H.
V.-Pres.—V. E. Bird, New London, Ct.
Burton Smart, Portland, Me.
Sec.-Tr.—J. L. Tudbury, Salem Gas Light Co.,
Salem, Mass.

Conv., 1921.

New England Gas Sales Association

Gov.—H. J. Pettengill, Jr., Blackstone Valley
Gas & Electric Co., Pawtucket, R. I.
Sec.—M. Bernard Webber, 67 Milk St., Boston,
Mass.

New Jersey State Gas Association

Pres.—F. R. Cutcheon, Long Branch, N. J.
V.-Pres.—Jacob B. Jones, Bridgeton, N. J.

Sec.-Tr.—H. E. Mason, Consolidated Gas Co.
of N. J., Long Branch, N. J.

Conv., 1921.

Pacific Coast Gas Association

Pres.—W. M. Kapus, Northwest Gas & Electric
Equipment Co., Portland, Ore.
Sec.-Tr.—W. M. Henderson, 445 Sutter St.,
San Francisco, Cal.

Conv., 1921.

Pennsylvania Gas Association

Pres.—J. H. Keppelman, Reading, Pa.
V.-Pres.—E. L. Smith, Towanda, Pa.
Luther Gaston, Lebanon, Pa.

Sec.-Tr.—W. O. Lamson, Chester County Gas
Co., West Chester, Pa.

Conv., 1921.

South Central Gas Association

Pres.—C. B. McKinney, 505 Scollard Bldg.,
Dallas, Tex.
1st V.-Pres.—F. L. Weisser, San Antonio Public
Service Co., San Antonio, Tex.
2d V.-Pres.—F. C. Armbruster, Southwestern
Gas & Electric Co., Shreveport, La.
Acting Sec.-Tr.—C. H. Seidenglanz, Dallas,
Tex.

Southern Gas Association

Pres.—E. C. Stothart, Charleston, S. C.
1st V.-Pres.—J. A. Forney, Charlotte, N. C.
2d V.-Pres.—J. C. Nichols, Bluefield, W. Va.
Sec.-Tr.—G. H. Smith, City Gas Co., Norfolk,
Va.

Conv., 1921.

Wisconsin Gas Association

Pres.—Bruno Rahn, Milwaukee, Wis.
Sec.-Tr.—Henry Harman, 182 Wisconsin St.,
Milwaukee, Wis.

Conv.—Milwaukee, March 22-23, 1921.

OTHER ASSOCIATIONS

Natural Gas Association of America

Pres.—Harry J. Hoover, Cincinnati, Ohio.
Sec.-Tr.—Wm. B. Way, 904-5 Oliver Bldg.,
Pittsburgh, Pa.

Conv., 1921—Cincinnati, Ohio.

Society of Gas Lighting

Pres.—Alex. H. Strecker, Newark, N. J.
V.-Pres.—W. Cullen Morris.
Sec.—Geo. G. Ramsdell, 130 E. 15th St., New
York, N. Y.

Treas.—Wm. J. Welsh

Conv., 1921.

Southwestern Electrical and Gas Association

Pres.—Bur. Martin, Dallas, Texas.
V.-Pres.—A. Hardgrave,
C. E. Corder,
A. H. Warren.

Sec.—H. S. Cooper, Slaughter Bldg.,
Dallas, Texas.

Treas.—J. B. Walker.

Conv., 1921.

ACCOUNTING SECTION.

W. H. PETTES, Chairman

H. W. HARTMAN, Secretary

EWALD HAASE, Vice-Chairman

Uniform Classification of Accounts

THE acceptance by the National Association of Railway and Public Utilities Commissioners on November 12th of a report and Uniform Classification of Accounts for Gas Corporations prepared by a committee of their Association probably represents the greatest step forward in gas company accounting that has been taken in many years. It is, however, only a step forward.

The Commissioners Association cannot prescribe a classification of accounts. They have accepted a classification which through joint conferences of the A. G. A., N. E. L. A. and Commissioners committees has been framed to adequately provide both for the interests of the utilities and the Public Service Commissions. They will distribute copies of this classification to each State Commission with a copy of their resolution recommending its adoption by them subject to such amplifications and (or) modifications as local statutes and commission procedure may require.

Individual commissions, influenced by the views of their own statistical and accounting staffs may hesitate in some instances to adopt the classification recommended, and if such hesitancy be continued the value of the splendid advance that has been made in national standardization will be lost so far as such state is concerned. To anticipate possible local objections the Association is asking its member companies to take such steps as circumstances may indicate to secure the adoption of the classification by their state commission. For this purpose a

service letter has been forwarded to all company members and shortly after this issue of the MONTHLY is published it is expected that a copy of the classification accepted by the National Association of Railway and Public Utilities Commissioners will be distributed to each gas company.

Familiarize yourselves with this classification and then communicate your approval either directly to your state commission or through the appropriate officers of your state association. It is only by the cooperation of all that the national uniformity which has been earnestly sought for years can be finally accomplished and we hope each of our company members will realize their responsibility in carrying this movement to a satisfactory conclusion. If a copy of the classification does not reach you, ask your company delegate to secure one for you, as all Association literature distributed is addressed to the company delegate.

In the report of our Committee at the recent annual Convention, it was stated that while the initiative must now be taken by the respective commissions supported by the individual companies, yet the Committee stood ready to aid to the utmost of its ability and members desiring to consult the Committee should address Association Headquarters. Remember that a "uniform" classification requires 100 per cent. adoption by existing state commissions and make it one of your New Year resolutions to "spread the gospel" in your state.

Editor's Note: Orders will now be accepted at A. G. A. Headquarters for printed copies of Uniform Classification of Accounts at \$1.00 each.

Are Gas Company Insurance Rates Too High?

MR. J. G. REESE in his paper, "Fire Insurance From the Public Utility Viewpoint," presented at the recent Convention, emphasized the need for a closer study of insurance rates and schedules if gas companies are to be assessed only such premiums as bear an equitable relation to the risk involved in insuring their property.

In the discussion which followed, some startling figures were brought out. One member stated that after a careful study of the fire losses sustained by some thirty companies of their organization located in different parts of the country they were astounded to find that these losses over a period of years amounted to approximately 8 per cent. of the insurance premiums paid. The result of this study was further substantiated by the statement of another member whose property was insured in a mutual company, to the effect that over a period of five years 80 per cent. of the premiums paid had been returned to them under the mutual agreement. Another instance was cited where on a property worth \$20,000,000 the losses during the past five years had not amounted to \$15,000.

In presenting to the Underwriters the figures on fire losses sustained by the thirty companies mentioned above it was further brought out that the last schedule on which to base premium rates had been made out in 1910 and that such rates were known as judgment rates—largely determined by the best past experience obtainable as to losses. The facts which this company were able to present covering their thirty properties, however, were sufficient to induce the Underwriters to appoint an Engineering Committee to formulate new schedules in this instance.

While the fire losses for the whole country have been enormous for the last year and insurance rates must be correspondingly high it is unquestionably true that gas company losses represent an insignificant fraction of that total and it is highly important from the standpoint of the industry that it be called upon to pay only its equitable proportion of the burden.

Gas company managers are apt to consider insurance as a small part of their operating expenses but when viewed from the standpoint of the industry as a whole, it makes a very impressive item. Of the \$4,000,000,000 invested in the gas industry of the Nation, it was estimated at the recent meeting that 25 per cent. or \$1,000,000,000 represented insurable values. If a 20 cent per hundred reduction in insurance rate could be secured on this valuation this would amount to an annual saving to the industry of \$2,000,000.

It would be useless to request any such reduction in rates from the Underwriters, however, without substantial facts and figures covering a sizeable proportion of the industry and a considerable period of years. A single company, no matter how impressive their individual experience might be, would probably receive scant attention. A resolution was accordingly adopted at the meeting recommending to the next administration the appointment of a committee to gather statistics covering the average fire loss of the industry and make a complete study of the insurance question with a view to establishing equitable rates. It was the consensus of opinion that while many gas companies might prove to be not so well managed as those represented in the discussion,

(Continued on page 63)

PUBLICITY AND ADVERTISING SECTION

M. C. ROBBINS, Chairman

A. A. HIGGINS, Vice-Chairman

C. W. PERSON, Secretary

A Good Will Campaign on Saving Gas

PUBLICITY is doubly effective when it is timely. During the month of September, for instance, several things happened in the State of Indiana which enabled the Northern Indiana Gas and Electric Company, operating through its offices at Fort Wayne, Bluffton, Decatur, Loganport, Peru, Wabash, Lafayette, Frankfort, Lebanon and Crawfordsville, to plan and put into operation a "good-will" campaign telling consumers how to save gas.

Among the factors favorable to such a campaign were, the cool September weather requiring an increased consumption of gas, a big canning season due to a bumper fruit crop, again calling for more gas, and increased gas rates at all points, making waste of gas more expensive than ever to the consumer.

Three newspaper advertisements and a window display were the outstanding features of the campaign. The message conveyed in the two advertisements was that "Wasting Gas is Burning Money," and this was supplemented by other information regarding the difficulties in securing materials and maintaining uniform quality and pressure. The third advertisement was No. 6 of the A. G. A. good will series and one of the first two advertisements showed part of the gas holder which was taken from our advertisement No. 7.

The window display not only showed the consumer how a gas flame should burn but also how it should not burn. Much other valuable information was demonstrated relative to the amount of

consumption of various burners, how to keep them clean and in efficient operating condition, etc. There was also prepared and distributed a printed circular telling each person how to properly regulate burners and save gas. According to S. E. Mulholland, vice-president of the company, this display attracted more attention in the towns mentioned above (the display was the same in each town) than any other ever held.

In the first advertisement appearing in the newspapers simultaneously with the window display, a direct appeal was made to the public to save gas.

"It is rather unusual," states the first advertisement in broaching the subject, "for a business of any kind to inform its patrons how they may be able to reduce the amount of their purchases or requirements; for the reason that the natural operation of business is to sell the greatest quantity of goods."

In the following paragraph, however, the advertisement states that inconsistent as it may seem, the policy of the gas company is rather to furnish its customers with all the information necessary to the end that they pay for no more gas than they use, adding, that there is no gain or profit to any one for waste, in the end.

"The present necessarily higher gas rates make waste of gas more expensive than ever. Every householder can save money by saving gas. Use it only when absolutely required. While it has been necessary to increase gas rates everywhere so that the companies might continue to produce the service, if the house-

holders will practice only the ordinary economies in the use of gas, they will find their bills will be largely reduced. Reasonable gas bills mean satisfied customers and their good will—our most valuable asset—and, further, satisfied customers are worth more to this gas company than all the profit secured from gas which is wasted.

"A gas company has just one thing to sell and that is service; a gas company that sells poor service is a poor gas company; a gas company that sells good service is a good gas company; and the policy of your gas company is to sell you the very best service possible.

"It is what you pay for when you pay your bills; it is the kind of service you are entitled to, therefore we feel that any information we can furnish that will result in a reduction of 50 cents or \$1, or whatever the sum may be, in our customer's monthly bills, is in both their interest as well as ours, for if a customer does not waste the gas he does not pay for it, nor do we have to use oil, coke, etc., to manufacture it."

The fuel situation was explained to the public in order that it might further understand the importance of saving gas. On this subject the advertisement states:

"The fuel situation is unprecedented and it seems at this time to be a certainty that there is going to be a more acute and serious shortage in coal, coke and gas oil this coming winter than has ever before been experienced, and while this company has been able by making purchases at extreme high prices to put in a reasonable stock of gas making materials, there is no assurance that fuel shipments will be kept up regularly throughout the winter. It therefore is also in the interest of maintaining the supply that gas should not be wasted."

The second advertisement reproduced in these pages tells the consumer definite ways in which economy in gas consumption may be effected. Samples of these advertisements, together with others of a like nature used by several companies, will be loaned to member companies upon request.

One Company Writes Us—

"We have been running your 'good will' advertising in the two newspapers of our city—each advertisement used has been attractive and right to the point—but we are frank to say that Advertisement No. 9 surpasses anything we have had; as a matter of fact, we consider it so good and true to the human side of the occasional knocker that rather than use the card and order by check mark, we want to take occasion to express our opinion and ask that you rush us off two three-column electrotypes at your earliest possible convenience."

Wasting Gas is Burning Money



How to Reduce Your Gas Bills

DON'T

- Don't use the giant burner on your gas range when a smaller burner will do.
- Don't light burners on your gas range until you have food ready to go on the fire.
- Don't allow a burner to remain lighted without being in use.
- Using the gas oven to heat the kitchen is not economical.
- Don't try to "more boil" anything it can not be done.
- Don't heat a kettle full of water when you only want a quart.
- Don't use the ovens of your gas range for storage of food—it rusts out the oven.
- Don't keep a full flame under container when water has reached boiling point. Turn down the flame or set utensil over small summer burner.
- Don't turn off cock part way at meter. It does not save gas bill, lessens the pressure and interferes with good service and is uneconomical.
- Don't use gas for heating without knowing the probable cost.
- Don't expect to use gas efficiently in an old wornout range, or one with burners out of adjustment.

DO

- Use gas only when it benefits you. Whenever possible use the smaller size burners instead of the large ones.
- Remember gas is no hotter ten minutes after burner is lighted than the instant it is lighted.
- Turn out gas and relight it again in event there is an interval when same is not needed. Matches are cheaper than gas.
- Keep burners of gas range clean by washing them in boiling water and soda at least once a month and have them dry before using, doing this will save gas.
- Don't bake pie or biscuits alone in the gas oven. Use gas ovens to their fullest capacity on baking days, plan to have a baked dinner when you bake.
- Have meter reader give you the reading of your meter and figure your own gas bill—but better—learn to read your own meter and read it frequently.
- Use triple anacapsa, set over one burner. You can cook three vegetables for the cost of cooking one. Ordinary anacapsa will cook only one vegetable at a time.
- Don't purchase from strangers so-called gas saving devices without first asking us whether they are of any value.

The average gas consumption of burners on standard ranges is as follows:

Broiler burners	.....	50 cu. ft. per hour
Oven burners	.....	40 cu. ft. per hour
Giant burners	.....	18 cu. ft. per hour
Medium burners	.....	12 cu. ft. per hour
Smaller or smallest burners	.....	4 cu. ft. per hour

The amount of your gas bill can be substantially reduced by using smaller burners more frequently.

A long, yellow, smoky gas flame is very wasteful as there is not sufficient air being mixed with the gas for proper and economical combustion.

It will pay you well to cut this out and keep near gas range as a constant reminder.

A small blue flame is hotter than a long yellow flame and requires less gas.

Remember local conditions are to blame for most gas troubles. Ask us to help you remedy your conditions.

Northern Indiana Gas & Electric Company

By S. E. MULHOLLAND, Vice President
FORT WAYNE, INDIANA

Mr. Mulholland sends us copies of his advertisement because, as he writes us, "I am always glad to pass suggestions along to the other fellow." Are you doing this as frequently as you should?

"One Man on the Block Makes Public Opinion"

No matter how good our service is, there is usually one man on the block who is forever finding fault with it. You know the man we mean. He is a good fellow at heart and talks sanely enough upon other subjects, but when he discusses this company's service he loses his balance completely.

What we regret most, however, is not that this man is soured against us, but that his attacks are permitted to go unchallenged by his friends who are also our friends.

In other words, you and hundreds of other satisfied customers in the same neighborhood take good service for granted, accept it, and say nothing about it. Your silence thus becomes his golden opportunity. With lips sealed, you innocently give him an encouraging slap on the back.

We value your good will, everyone's good will. This company is your company, the public's company. Now let us work together to convert this man from a knocker into a booster.

(Insert name of your Company here)

MEMBER OF THE AMERICAN GAS ASSOCIATION

Ninth of a series of twelve "good will" advertisements now being prepared for member companies. Price of series complete with matrices in either three or four-column newspaper width, \$36.00. Price of three-column electrotypes, \$48.00. Orders for single advertisements accepted at \$3.00 per matrix and \$4.00 per electrotype.

COMMERCIAL SECTION

H. S. SCHUTT, Chairman

LOUIS STOTZ, Secretary

A. P. POST, Vice-Chairman

An Unusual Campaign of the Gas Companies of Manhattan and the Bronx, New York City



In order to introduce to their customers the advantages of Semi-Indirect Gas Lighting, the Consolidated Gas Company of New York City and its affiliated gas companies of Manhattan and the Bronx, conducted a campaign which started on October 4th and closed on November 16th, 1920.

Ten thousand (10,000) No. 1602 Welsbach Semi-Indirect Lighting Fixtures were sold during this period.

No fixtures were sold for commercial lighting purposes, only residences were canvassed. No fixtures were put out "on trial." While the fixtures and installation work were guaranteed against defects, no "guarantee of free maintenance" was attached to the contract of sale.

The fixtures were sold for \$21.00 each; \$3.00 at the time of signing the contract,

and \$3.00 with each of the next six gas bills. Any customer desiring to pay cash for the fixture was allowed a discount of \$2.00, making the net cash price \$19.00. While no effort was made to sell the fixtures for cash, many customers took advantage of the cash price and saved two dollars.

The canvassing unit consisted of a supervisor and a crew of ten salesmen, a sufficient number of fitters to install the fixtures sold by the salesmen, and a truck or wagon carrying fixtures and supplies. Six such outfits were operated from offices in Manhattan and Bronx. The mechanical crews with the supply wagons reported to their respective offices each morning at 8.00 o'clock, and the sales crew reported at 8.30 o'clock. The District Office Sales Manager designated each morning, the territory to be worked

during the day. The supervisor accompanied the crew of salesmen to the designated location, and there met the supply wagon and the lamp setters.

The supervisor assigned a house to each salesman, and the salesman equipped with a triplicate contract book and a fixture from the supply wagon began a thorough canvass of the house assigned to him. Upon making a sale, the salesman secured the customer's signature to the contract, collected the first installment, left the fixture and a duplicate of the contract with the customer, and reported immediately to the supply wagon, turning the triplicate of the contract over to the supervisor, received another fixture, returned to the house and continued the canvass.

The supervisor turned the triplicate of the contract over to the fitter, who immediately installed the fixture, VERIFIED the sale, name of the gas company supplying the gas, ledger and folio number, amount paid to the salesman as first installment, made sure the purchasers understood the terms of sale; instructed the purchaser how to turn the light ON and OFF, lower the bowl, light and pilot, etc. The fitter then filled in the required information on the back of the triplicate contract, and at the close of the day's work he turned over these triplicate contracts and any fixtures and supplies remaining in the supply wagon to the District Sales Manager.

Upon their return to the office at 4:30 P. M., the salesmen recorded in their indi-



This ad. was reproduced in various foreign language newspapers—Hebrew, Austrian, Italian etc.

vidual pass books their sales for the day, listing the contract number, name of purchaser, address and amount collected. The salesmen then made out a "cash coupon" for each sale and turned the original contracts with cash coupons attached, pass book and money over to the District Sales Manager. The latter received the salesman's pass book and returned it to him.

The salesmen were paid a straight commission of \$3.00 per fixture, regardless of whether it was sold on the cash or the installment plan. The supervisors were paid a salary of \$3.00 per day and a commission of 25 cents, for each fixture sold by the salesmen composing their crews. Fitters, regular employees of the shop, were temporarily transferred to the Sales Department and received their regular salaries plus a small bonus for each fixture installed. Salaries and commissions were paid on Wednesday of each week and covered fixtures installed to and including the previous Saturday.

The supervisors and salesmen were new employees, recruited in a few days through ads in the help wanted columns of the local newspapers. The fitters were

**A HANGING GAS LAMP
FOR EVERY HOME**

No Glare—No Shadows—No Dark Corners

**A LAMP THAT EVENLY
DISTRIBUTES ITS LIGHT**

IT IS SUCH A LAMP THAT WE START TO FEAT-
URE this week because it is the very type of illumination
that thousands of our customers need and will
appreciate.

Through this semi-indirect method of lighting half of the illumination
comes from the lamp itself and the other half from the ceiling.
The other half is reflected by the ceiling so that a soft,
cheerful glow is given to all parts of your Living Room, Hall,
Parlor, Library, Dining Room, Bedroom or "Den".

Our representative will call and explain its many merits.

**BEST LIGHTING RESULTS WITH THE
USE OF LITTLE GAS**

This lamp may be seen in our Showroom at
Bronx Gas Office.

It may be purchased on a Very Low Payment
Plan, whereby the payments extend over a
period of six months.

Don't Miss This Opportunity

CONSOLIDATED
GAS COMPANY
OF NEW YORK
Gen. M. Director,
Bronx.



given a thorough schooling in assembling, installation, and adjustment of the fixtures, before being assigned to duty in the Campaign Mechanical Crew.

Prior to the commencement of the campaign, the supervisors, salesmen and all others having anything directly or indirectly to do with the campaign work, were given a course of lectures in the salesmanship directly applicable to the marketing of the particular fixture. Brief "ginger" and "encouragement talks" were given from time to time as circumstances warranted during the course of the campaign.

The campaign was backed by the strongest kind of publicity. A series of advertisements were run in all the New York dailies. Lithographed posters were displayed on the sides of all the gas companies wagons and trucks. Advertisements were printed on the gas bills. A tri-color folder was distributed by the sales people on the sales floors of the various district and branch offices. Artistically arranged displays of the fixtures were maintained in the several branch office windows.

ORIGINAL
HIRE-PURCHASE AGREEMENT
 SALESmen REPRINT CUSTOMER'S NAME HERE

No. 9903

LED.

FOLIO

First Name _____ Last Name _____ New York, _____ 192

Consolidated Gas Company of New York:-

I hereby authorize you to install for me a "1602 WELSBACH FIXTURE", for which I agree to pay Twenty-One Dollars (\$21.00).

I have paid your salesman Three Dollars (\$3.00) on account of the fixture and agree to pay Three Dollars (\$3.00) per month during the following months, until the sum of Twenty-One Dollars (\$21.00) shall have been paid.

If payment is not made as contracted by me, the said fixture may be removed by authorized agents of the **Consolidated Gas Company** and all sums paid on account of said fixture shall be retained by the **Consolidated Gas Company** and will be considered as reasonable compensation for rent, wear and tear upon the said fixture.

Company _____ Supplying _____ Signed _____

Floor _____ Apt. _____ Address _____

Received _____ Payment _____ Salesman _____

Badge No. _____

As Salesman is not authorized to change the conditions of this agreement.

250 Form 1345-8-20

Date Due	Amt.	Date Paid
Oct.		
Nov.		
Dec.		
Jan. 1921		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Remarks		

There was an average of about 60 salesmen working each day. The general average sales per man per day approximated five fixtures. The larger the number of salesmen working the more difficult it is to maintain a high average

per man. Quite a number of the salesmen averaged more than seven fixtures per day for the entire campaign. The "Banner Day's" sales occurred on October 23rd when 640 fixtures were sold and installed.

Another Magazine Article on Gas

William Ressman Andrews, a magazine writer who is cooperating with the Publicity and Advertising Section, has an article in the November 27th issue of *Scientific American* entitled, "One Hundred Years of Gas Lighting."

MANUFACTURERS SECTION

GEO. S. BARROWS, Chairman

JOHN S. DeHART, Vice-Chairman

W. W. BARNES, Secretary

Our prosperity is dependent upon the prosperity of those producing the gas utilized by our appliances—our interests are in common.

A Review of The Second Annual Exhibition 1920

THE Manufacturers' Section is indeed proud of the success of the Exhibition held in conjunction with the Second Annual Convention of the Association. A remarkable array of exhibits filled the Roof Garden and Butterfly Room of the Hotel Pennsylvania which were decorated with natural palms and artificial flowers.

The segregation of exhibits proved most satisfactory to visiting delegates, as the engineer interested in apparatus, supplies, etc., found in the Butterfly Room many innovations and demonstrations for his special attention. All of the well-known engineering firms were represented, several having working demonstrations as in the case of the U. G. I. Contracting Company with their automatic control, Brady B. t. u. Indicator, and first aid equipment and by means of views in the Balopticon machine they showed the apparatus and installations covering carburetted water gas, blue gas and coal gas such as are

made in the U. G. I. intermittent vertical retorts. The Cutler-Hammer Manufacturing Company showed one of their new calorimeters in continuous operation; the John J. Griffin & Company, a new service meter; the Refinite Company, of Omaha, Nebraska, demonstrated their process for softening water; the S. R. Dresser Manufacturing Company exhibited their line of couplings for meter connections and pipe lines; M. T. Davidson Company, a working model of the Davidson Pump and also showed a small oil pump such as is used by many gas companies throughout the country. The National Tube Company had a very interesting display of their standard coils and pipes as well as the National Butt-weld Pipe; H. Mueller Manufacturing Company displayed a complete line of the Mueller Gas Service Cocks and other Mueller products, and featured a lock wing gas cock sealing device. The Quigley Furnace Specialties Company exhibited Hytempite, a high temperature



Exhibition of Gas Appliances

refractory cement for bonding firebrick and granular refractory materials; Carbosand, a highly refractory fire sand for use in furnace linings, special shapes and repairs. The West Gas Improvement Company of America displayed a series of drawings of the Glover-West vertical retorts system, as well as views of several plants in which installations had been made. The United Lead Company by means of photographs showed workmen preparing strands of lead wool preparatory to filling a joint; as well as cast iron pipe calked with lead wool, the joints being of the split sleeve type to permit of inspection of the exposed parts. The Connelly Iron Sponge & Governor Company displayed their standard types of governors and samples of iron sponges. The feature of the Western Gas Construction Company was a model H reversing valve for water gas apparatus, a slide valve for reversing the direction of flow of gas in purifiers, type R gate valve, and illustrations of their plant. The

Bartlett-Hayward Company exhibited by means of the Balopticon machine, illustrations of their products as well as airplane views of the Astoria works. The Republic Flow Meters Company demonstrated a low differential station gas meter which was connected to a line from a blower and the method of measurement clearly shown. The Republic CO₂ Recorder especially developed for boiler room work was also exhibited. The Koppers Company exhibit consisted of photographs of the Koppers triangular flued combination coke and gas ovens, also coal gas plants with a minimum capacity of 500,000 cubic feet of gas per day.

The Division of Meter Manufacturers was represented by the Sprague Meter Company, of Bridgeport, the Bacharach Industrial Instrument Company, of Pittsburgh, the Superior Meter Company, Brooklyn, Pittsburgh Meter Company, Pittsburgh; American Meter Company, New York; Metric Metal Works, Erie,

Pa.; Equitable Meter Company, Pittsburgh. All of these companies had displays embodying the latest developments for measuring gas, all of which were most interestingly demonstrated.

The Division of Office Labor Saving Devices Manufacturers was represented by the Elliott-Fisher Company, the Underwood Typewriter Company, Addressograph Company, Library Bureau, Kalamazoo Loose Leaf Binder Company, Burroughs Adding Machine Company, the Remington Typewriter Company and the Monroe Calculating Machine Company. These companies by means of charts and forms with demonstrators made the visits of accountants to this section of much interest and profit. Fit-tings for the industry were exhibited by the Aws Manufacturing Company, of New York, the Roberts Brass Company and the Acme Brass Works, of Detroit, the Roberts Brass Company's display being most unique as they showed a large gas cock and a colored illustration of their plant enclosed in a frame and

lighted by means of an electric lamp. The Lattimer Stevens Company exhibited samples of different styles of meter connections which have been standardized for meter installations by many of the large gas companies. The Sharples Specialty Company secured a booth at the last moment and while no exhibit was made, their representatives were interviewed by visiting delegates on the subject of the dehydration of tar.

On the bridge connecting the Butterfly Room with the main exhibition in the Roof Garden, were located the trade journals, *The Gas Age*, *The American Gas Engineering Journal*, *The Gas Record* and the *Gas Industry*. The location of the booths was ideal, permitting the editors and their representatives free access to both exhibition rooms, giving them an opportunity to touch elbows with their subscribers and advertisers.

The *Canadian Gas Journal* was represented by George W. Allen, although no booth was occupied by that publication. In view of the close relations with the



Equipment of Interest to the Engineer

Canadian Gas Association arrangements will be made in future for the *Canadian Gas Journal* to be represented at our exhibitions with other trade publications.

In the main exhibition room, seventy-one spaces were occupied by the prominent firms in the industry. Space will not permit of details concerning these exhibits. Suffice it to say that every company exhibiting showed vast improvements in the manufacture of their product over former years, some showing decided departures from their old lines. A particular effort was made at this exhibition to interest commercial men in gas lighting, manufacturer company members in the gas lighting field joining together and submitting samples of their product for the Collective Gas Exhibit which was shown outside of the main exhibition room, fixtures and portables being furnished by the Welsbach Company, Kramer Brothers Lamp Company, General Gas Light Company and the Royal Art Glass Company. Samples of tubing in this Collective Gas Exhibit were displayed by the Bishop Gutta Percha Company, Atlantic Tubing Company, and the Eastman Manufacturing Company.

The results obtained from this demonstration were not as encouraging as manufacturers hoped, for very few orders were placed for delivery at this time.

For the first time at our Exhibition a gas ironing machine was demonstrated, the product of the Barnett Foundry & Machine Company.

Flashlights for the use of service men were displayed by the Novo Manufacturing Company, of New York, and the Diamond Electric Specialties Company, of Newark.

Appliances for gas heating were more in evidence than at any previous Exhibition and in addition to the General Gas Light Company's new models, exhibits

were made by J. P. Slattery Brothers, of Brooklyn, Roberts & Manders Stove Company, Reznor Manufacturing Company, the J. H. Grayson Company, the Reliable Stove Company, Welsbach Company, Cabco Sales Company, Grinnell Company, the A. H. Wolff Gas Radiator Company, and James B. Clow & Sons. Stove lighters were demonstrated by the Strause Gas Iron Company, the Milwaukee Gas Specialty Company, and a new lighter doing away with the pilot, by the J. M. Sherwood Company.

Water heaters, both automatic and copper coil were demonstrated by the Hoffman Heater, the Lovekin, the Kom-pak, Humphrey, and Ruud Manufacturing companies. Copper coil tank water heaters by the Cleveland Heater Company, and Philadelphia Stove Company.

The Strause Gas Iron Company demonstrated their "I want U" gas iron, and the Benson Manufacturing Company the NuStyl iron.

Gas ranges were shown by the Baltimore Gas Appliance and Manufacturing Company, General Gas Appliance Company, Quick Meal Stove Company, New Process Stove Company, Eclipse Stove Company, Michigan Stove Company, Chambers Manufacturing Company, the Trenkamp Stove and Manufacturing Company, Reliable Stove Company, Wm. M. Crane Company, Walker & Pratt Manufacturing Company, Roberts & Mander Stove Company, George D. Roper Corporation, A-B Stove Company, Comstock Castle Stove Company, Peninsular Stove Company, Abram Stove Company, Detroit Stove Works, Union Stove Works, Weir Stove Company, Geo. M. Clark & Company, National Stove Company, Rathbone, Sard & Company, Estate Stove Company.

Young Brothers displayed their japanning oven and B. Ryan Company their

new Jarvis Thermoflash, which is a thermostatic control for any make of small gas water heater.

Industrial appliances were exhibited by the Surface Combustion Company by means of illustrations; the Robertshaw Company by working models, the G. S. Bledgett Company, the American Gas Appliance Company, the Bryant Heater & Manufacturing Company, Chas. A. Hones, Johnson Gas Appliance Company, the Improved Appliance Company; the DeMitties Broiler Systems, Inc., demonstrated their revolving broiler, and the Ofeldt Gas Fired Boiler Company their line of gas fired boiler with a working demonstration.

It is most gratifying to us in connection with this Exhibition that at no time in the history of this or other associations has more interest been displayed by exhibitors than at this Convention, all feeling that the effort expended on their part was amply repaid in the results obtained by their representation there.

Expressions from manufacturers all indicate that each year brings an im-

provement over the former exhibition and all look forward to the coming Exhibition to which their hearty cooperation is assured.

The invitations which were sent to the various trade organizations to visit the Exhibition were accepted by a great many of their members. Prominent architects, plumbers, builders and supply dealers spent considerable time visiting the various exhibits and in a number of cases tangible evidence in the shape of orders was reported to the Exhibition Committee.

The income which for many years has been overlooked by plumbers and supply dealers in the sale of gas appliances is now being taken advantage of by that class of trade as it has been proved that with the proper effort gas appliances are ready profit makers to the trade.

The membership of the Association was increased during the meeting, a number of firms who had in the past been considering taking membership reached a conclusion at that time.



TECHNICAL SECTION

R. B. HARPER, Chairman

H. W. HARTMAN, Secretary

H. R. COOK, Jr., Vice-Chairman

New Wrinkles

THE unsettled conditions existing during the past year have presented problems to the operating force of our manufacturing and distribution departments which have severely taxed the ingenuity of their technical staff. These problems have required constant readjustment to new conditions, in some cases the use of new materials or materials of widely different quality, and at all times have stimulated the inventive talent of the company's technical staff to the highest degree.

That this has resulted in developments highly important to the whole industry was shown by the discussions at the recent Convention. The unusually large attendance enabled engineers and operating men from all parts of the country to exchange experiences and to obtain mutual benefit from the knowledge gained of what the other fellow was doing.

To mention a few instances, in the discussion of the Gas Oil Committee's report the use of tar in generators was described; in discussing the Waste Disposal report, a cheap method of disposing of waste water by treatment and later use in the boilers was outlined; the discussion of the Electrolysis Committee report developed many experiences in this field and so on throughout the sessions.

This information has been made available to the members who were present and will later reach other members through the *Proceedings*. But it cannot be doubted that there were many other

developments which the available time and arrangement of program at the Convention did not bring forth. It would be of distinct benefit to the industry if all such developments were promptly brought to the attention of each company and this can to a large extent be accomplished through the pages of the *MONTHLY*.

If you are doing anything in a new way,—have solved an operating problem that has been troubling you, think of the value this information may have for John Jones who may be attacking the same problem in another part of the country, and send us a short description of your method or apparatus, whichever it may be.

We will print in later issues a wrinkle describing a method of cleaning out accumulation of dirt from deep drips and another descriptive of apparatus for cleaning tar separators. We would like to devote some space each month to printing others and in this way maintain throughout the year between our members, the personal touch which has proven so valuable at our Conventions. The Secretary will be glad to receive your contribution.

Testing, Handling and Minor Repairing of Dry Gas Meters

The recent Distribution Session of the Technical Section formally adopted the report of the Consumers Meters Committee, incorporating a complete standard method for the testing of consumers' meters.

The importance of this step was indicated by the statement of one of the members present that after approximately seventy years of measuring gas in sliding valve meters and the consideration by gas associations since 1873 of methods connected with their use, we had for the first time before this Association a report on which all the members agreed on the best method of testing meters.

Whenever state commissions have gone into the question of meter testing in the past, the lack of agreement heretofore existing has resulted in conflicting recommendations emanating from the gas men themselves. Had such a standard procedure as presented in this report been available all this confusion could have been avoided.

Another member spoke of the valuable assistance already rendered to their company by this report. It had been found necessary to reorganize entirely their meter repair department due to the number of experienced meter repair men that had left them during the war period. In training the new men to take their places the company had decided to prepare a bulletin of instructions and were engaged in collecting all available data for this bulletin when the Consumers Meters Report reached them. In this report they found the material required for their bulletin in much more complete form than they would have been able at considerable trouble to obtain for themselves.

It was not an easy task to work out a schedule which could be unanimously approved by a committee as representative of all interests as the Consumers Meters Committee. The report represents two years of hard work by the present committee and four or five years thought of some of our members most experienced in meter work. It has been approved by the Section and copies have been distrib-

uted to the members at the Convention and to others who had requested copies in advance.

But this work is too valuable to receive merely a formal acceptance and then be forgotten. The application of this schedule to their own operations deserves the serious consideration of every company member. If you have not a copy of the report before you, you can obtain them from Association Headquarters at 15 cents a copy for members and 30 cents for non-members. We still have a stock on hand.

The adoption of any standard requires a broad minded consideration of the subject. The report now represents the method adopted by your Association. Study and adopt it yourself or tell us what vital objections you have.

Electrolysis Surveys

The discussion at the Convention indicated how important this subject is to our members and Professor Hazeltine was kept busy answering the questions brought up by his report on Electrolysis Surveys. Experiences of the members with electrolytic trouble on their systems were freely exchanged and particularly valuable information on the subject of fire hazards due to stray electric currents was obtained for the use of next year's committee.

While the presentation and discussion of this report has yielded much information of value it is felt that the Committee could render a much greater service if its requests for electrolysis data throughout the year were more freely responded to by our members. The Committee is particularly anxious to receive all possible information relating to fires and explosions due to electrolysis. The names of all companies submitting such data are kept strictly confidential and the information is used only in a statistical way.

Make your contribution to this store of information so that the Committee may be in the strongest possible position in representing the interests of the industry.

The Committee's report this year covered the nature and occurrence of stray currents; necessary measurements, measuring instruments, recording and compiling data, physical examination of underground structures, and the interpretation

of results in electrolysis surveys; and a brief statement on remedial measures to date. This information is very valuable to all companies and if you did not obtain a report at the Convention you can get one from Association Headquarters at 10 cents a copy for members and 20 cents for non-members. It will give you a better grasp of your own electrolysis situation.

RECENT ARTICLES IN CHEMICAL PRESS OF INTEREST TO GAS MEN

Contributed by Sub-Committee on Abstracts* of the Chemical Committee

FUEL ECONOMY SYMPOSIUM AT THE SIXTH CHEMICAL EXPOSITION. *Chemical and Metallurgical Engineering*, Vol. 23, No. 14, 658-660 (Oct. 6, 1920). (David L. Jacobson.)

STATUS OF MANUFACTURED FUEL GAS. By S. S. Wyer, *Chemical and Metallurgical Engineering*, Vol. 23, No. 14, 695-6 (Oct. 6, 1920). Some interesting figures are given on the amount of natural and manufactured gas produced in the United States in 1919. Conservation methods in the use of natural gas are recommended. Even if all beehive ovens were replaced by by-product ovens, the natural gas supply could not be entirely replaced by coal gas, if the natural gas failed completely. (David L. Jacobson.)

FUEL SYMPOSIUM AT THE SIXTIETH A. C. S. MEETING, CHICAGO. *Chemical and Metallurgical Engineering*, Vol. 23, No. 16, 792-3 (Oct. 20, 1920). (David L. Jacobson.)

CHEMICAL INDUSTRIES LIKELY TO LOSE NATURAL GAS SUPPLY. By R. S. McBride, *Chemical and Metallurgical Engineering*, Vol. 23, No. 15, 743-4 (Oct. 13, 1920). The state commissions of West Virginia, Penn-

sylvania and Ohio are considering regulations governing the use of natural gas. Curtailment of supply is probably in industrial uses; and chemical plants such as ceramic factories, brick kilns, glass factories and carbon black plants may be affected. Some interesting figures and charts are given. (David L. Jacobson.)

THE GAS INDUSTRY; A DIAGNOSIS AND PRESCRIPTION. By R. S. McBride, *Chemical and Metallurgical Engineering*, Vol. 23, No. 13, 622-7 (Sept. 29, 1920). "The manufacture of gas, although fundamentally a chemical problem, has been, and to some extent still is, directed on mechanical technologic lines; healthy progress in this industry requires a better knowledge of the chemical fundamentals involved." This is an able discussion of the importance of the chemist to the gas industry especially with reference to new developments in the near future. Some of the points emphasized are: Variety of coking and gasification processes; need for better understanding of chemical reactions in carbonization; efficiency of gas utilization; and the long distance transmission of gas. (David L. Jacobson.)

REMOVAL OF NAPHTHALENE FROM ILLUMINATING GAS. *Chemical Abstracts*, Vol. 14, 2851 (Sept. 20, 1920). Review of literature with special reference to the Derby and Excelsior processes. (E. J. Murphy.)

COKE RECOVERY FROM GENERATOR SLAG. By P. Haake, *Journal Gasbeleuchtung*, Vol. 63, 277 (1920); *Chemical Abstracts*, Vol. 14, 2853 (Sept. 20, 1920). (E. J. Murphy.)

CORRECT METHODS OF GAS ANALYSIS. By E. Ott, *Journal Gasbeleuchtung*, Vol. 63, 198-205; *Chemical Abstracts*, Vol. 14, 2851 (Sept. 20, 1920). Description of an apparatus of the constant pressure type. Both the apparatus and method of operation is described and several check analyses given. (E. J. Murphy.)

*Abstractors' names appear in brackets following each item.

Books and Pamphlets

AMERICAN GAS ASSOCIATION

130 East 15th Street, New York, N. Y.

	Author	Net Price to Members	Net Price to Non-Members
GENERAL (Convention Literature Only)			
Accident Prevention, Report of Committee on (1920).....	Douglas	\$.05	\$.10
Accident Prevention, Report of Committee on (1919).....	Douglas	.05	.10
Accident Prevention, Report of Committee on (1916).....	Douglas	.10	.20
Accident Prevention, Report of Committee on (1915).....	Douglas	.15	.30
Accident Prevention, Report of Committee on (1914).....	Douglas	.10	.20
The Public Utility Company in Court (Address—1920).....	Ransom	.15	.30
Address of R. L. Welch, Sec'y and Counsel American Petroleum Institute .....		.10	.20
Calorific Standards—Report of Committee (1920).....		.50	1.00
Contractual Obligations of Utility Corporations Under Their Franchises	Dawes	.05	.10
Emergency Committee, Report of (1920).....	Gadsden	.05	.10

ACCOUNTING SECTION (Convention Literature Only)

Job Order Systems, Report of Committee (1920).....	Sterrett	.15	.30
Continuous Inventory of Fixed Capital, Paper (1920).....	Johnston	.05	.10
Fire Insurance from the Public Utility Viewpoint, Paper (1920).....	Reese	.10	.20
Purchasing and Storeroom Accounting, Paper (1920).....	Werner	.15	.30
Restoring Office Personnel of Public Utility Company, Paper (1920)	Herring	.10	.20

OTHER ACCOUNTING LITERATURE

Uniform System of Accounts for Gas Corporations* (1920)....		1.00	2.00
* Report accepted by National Association of Railway and Public Utility Commissioners.			

PUBLICITY AND ADVERTISING SECTION (Conven- tion Literature Only)

Newspaper Publicity, Getting Results from, Paper (1920).....	Lucas	.05	.10
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Drying, The Application of Gas to (1920).....	Schutz	.06	.12
Forging, The Application of Gas to (1920).....	Crawford	.06	.12
Galvanizing, The Application of Gas to (1920).....	Wright	.06	.12
Internal Heating, The Application of Gas to (1920).....	Flynn	.06	.12
Japping, The Application of Gas to (1920).....	Reynolds	.06	.12
Smoking, Curing and Preparation of Meat and Fish Products, The Application of Gas to (1920).....	Hampton	.06	.12
Automobile and Tire Repair Shops, The Use of Gas in (1920).....	Hudson	.06	.12
Educational Institutions, The Use of Gas in (1920).....	Wolfe	.06	.12
Newspaper Plants of Boston, The Use of Gas in (1920).....	Powers	.06	.12
Railroad Shops, The Use of Gas in (1920).....	Cummings	.10	.20
Steel Treating, The Value of Gas for (1920).....	Monroe	.06	.12
Varnish Boiling, The Application of Gas to (1920).....	Cauley	.06	.12
Vitreous Enamel Industry, The Application of Manufactured Gas in the (1920).....	Dorchester	.06	.12
Proportional Mixing, Report of Committee on (1920).....	Krausse	.08	.16
Proportional Mixing, Report of Committee on (1919).....	Krausse	.08	.16
Compensation of Salesmen, Report of Committee on (1920).....	King	.08	.16
Filling in the Valleys in Gas and Appliance Sales, Report of Committee on (1920).....	Karshner	.05	.10
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PROCEEDINGS for 1920 and future issues will be sold at cost to members, as covered by Amendment—(Active members shall receive one copy of the Official MONTHLY of the Association and in addition shall be accorded the privilege of subscribing, at cost of printing and delivery, for copies of the general and sectional proceedings of the Association.)

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Compressors (Centrifugal) in Manufacture of Gas (1911).....	Lowenstein	.10	.20
Condensation, Washing and Scrubbing (1915).....	Davidson	.25	.50
Condensation, Some Principles of Particularly Water Gas (1911).....	Worthington	.20	.40
Credit System in Operation by P. G. L. & C. Co., Outline of (1916).....	Blair	.10	.20
Cyanogen, Extraction from Coal Gas at Astoria Works (1910).....	Mueller	.25	.50
Depreciation, Estimated and Actual (1913).....	Humphreys, A. C.	.10	.20
Detarring Gas, Electrical Process (1914).....	Steere	.10	.20
Distribution in British Undertakings (1915).....	Hole	.50	1.00
Distribution, Unit Costs in (1916).....	Treadway	.10	.20
Electrolysis, Committee Report (1909).....	Ganz	.25	.50
Electrolysis, Insulation as Means of Minimizing (1911).....	Rosa-McCollum	.25	.50

Net Price to Members Net Price to Non-Members

Young	.15	.30
Erickson	.25	.50
Way	.10	.20
Bratton-Mantle	.15	.30
Serrill	.25	.50
Serrill	.15	.30
Stone	.10	.20
Winterstein	1.00	2.00
Barrows-Winterstein	.15	.30
Wilson	.10	.20
McLean	.25	.50
Serrill	.10	.20
Serrill	.10	.20
Serrill	.15	.30
Waring	.10	.20
Spitzglass	.15	.30
Glasgow	.25	.50
Patterson	.10	.20
Gilpin	.10	.20
Wright	.25	.50
Blauvelt, W. S.	.10	.20
Berolzheimer	.25	.50
Stone-Hinman	.10	.20
Klumpp	.70	1.40
Klumpp	.10	.20
Klumpp	.15	.30
Elliott	.10	.20
Gartley	.10	.20
Gartley	.10	.20
McBride	.25	.50
Hunter	.25	.50
Evans	.25	.50
Evans	.10	.20
Ramsburg	.25	.50
Spencer	.20	.40
Russell	.25	.50
Blauvelt, W. H.	.10	.20
S. G. E. of N. Y.	.50	1.00
Evans	.10	.20
Tutwiler	.10	.20
Peck	.10	.20
Stannard-Cannon	.10	.20
Porter-Taylor	.10	.20
Blauvelt, W. H.	.10	.20
Ramsburg	.10	.20
Shaeffer	.15	.30
Seymour	.25	.50
Lowenstein	.10	.20
Davidson	.25	.50
Worthington	.20	.40
Blair	.10	.20
Mueller	.25	.50
Humphreys, A. C.	.10	.20
Steere	.10	.20
Hole	.50	1.00
Treadway	.10	.20
Ganz	.25	.50
Rosa-McCollum	.25	.50

	Author	Net Price to Members	Net Price to Non-Members
Employees, Bulletin System as a Means of Instructing (1916).....	Ritter	.10	.20
Employees (Distribution), Improvement of (1914).....	Reinicker	.10	.20
Fuel Gas, Domestic (1915).....	Slade	.15	.30
Fuel Gas, Industrial (1915).....	Frueauff	.15	.30
Gas Chemists' Handbook (1917).....	Tutwiler, Chmn.	3.50	7.00
Gas in Mains, Flow of (1911).....	Batten, J. W.	.10	.20
Gas Works Auxiliaries (1915).....	Spitzglass	.50	1.00
Holder, Construction of Reinforced Concrete Tank for (1910).....	Elbert	.20	.40
Holder Cups and Tanks, Behavior of Water in (1913).....	Alrich	.10	.20
Holder Tanks, Brick Concrete and Steel (1910).....	Alrich	.25	.50
Holders, Care and Maintenance (1914).....	Braine	.15	.30
Holders, District (1911).....	Griawold	.10	.20
Housepiping, Committee Report (1916).....	Vincent	.10	.20
Housepiping, Committee Report (1915).....	Reinicker	.25	.50
Housepiping, Proper Specifications and Inspection of (1914).....	Turner	.10	.20
H.S in Gas, Determination of (1914).....	Way	.10	.20
Ignition, Gas (1916).....	Little, Jr.	.15	.30
Illuminants, Separation of in Mixed Coal and Water Gas (1914).....	Burrell-Robertson	.10	.20
Light, Importance of Direction, Quality and Distribution (1913).....	Luckiesh	.10	.20
Light Oils, Analysis of Small Quantities (1917).....	Sperr-Kohr	.25	.50
Light Oils, Effect of Removal upon Quality of Gas (1917).....			
Light Oils, From Coke Oven Gas, Equivalent of Observed Heat Value (1916).....	Willien	.25	.50
Lighters, Automatic and Distance (1913).....	Shaeffer	.10	.20
Lighting (Gas), Why I Believe in (1917).....	Gilpin	.10	.20
Lighting, Buoy and Car (1915).....	Luther	.15	.30
Lighting, Commercial (1915).....	Hulse	.25	.50
Lighting, Committee Report (1916).....	Colquhoun	.15	.30
Lighting, Committee Report (1915).....	Bond	.20	.40
Lighting, Domestic (1915).....	Bond	.15	.30
Lighting, Gas Arcs, Installation of (1914).....	Shattuck	.15	.30
Lighting, Industrial (1915).....	Luther	.10	.20
Lighting of Interiors (1913).....	Pierce	.25	.50
Lighting Interiors, Some Phases of Illumination of (1913).....	Luther	.15	.30
Lighting, Office and Store (1915).....	Millar, P. S.	.10	.20
Lighting, Residence (1915).....	Scofield-Fogg	.75	1.50
Lighting, Semi-Public (1915).....	Morris, W. A.	.25	.50
Lighting, Street (1915).....	Little, Jr.	.25	.50
Lighting Division, Chicago's Experience with a Separate (1916).....	Barrows	.25	.50
Mains, Installation of Cast Iron Street (1914).....	Luther	.25	.50
Mains, Installation of Steel and Wrought Iron (1913).....	Forstall, W.	.25	.50
Mains, Laying of a Pair of 30-Inch Cast Iron Under Passaic River (1910).....	Rice	.15	.30
Mains, Laying of a 48-Inch and Two 36-Inch Under the Harlem River (1910).....	Strecker	.15	.30
Mains, Leaks, Organization and Method of Handling (1913).....	Simpson, C. C.	.25	.50
Mains, Protection by Adequate Inspection System (1913).....	Whittaker	.15	.30
Mains, Protection of by Intelligent Use of Underground Space (1913).....	Simpson, C. C.	.15	.30
Mains, Standards (1913).....	Gould	.10	.20
Manufacture (Gas) from Point of View of Physical Chemistry (1914).....	Vincent	.15	.30
Management, Office (1915).....	Rittman	.10	.20
Measurement of Gas in Large Volumes, Committee Report (1914).....	Stannard	.15	.30
Measuring Flow of Unpurified Gases at High Temperatures (1916).....	Wing	.10	.20
Merit System (1916).....	Spitzglass	.25	.50
Meter Connections, Committee Report (1915).....	Kelley	.20	.40
Meter Readers, Compensation (1914).....	Harrington	.25	.50
Meters (Consumers), Accuracy of (1910).....	Schaper	.10	.20
Meters (Consumers), Committee Report (1916).....	Castor	.15	.30
Meters (Consumers), Installation, Repairing and Testing by a Small Company (1914).....	Harrington	.20	.40
Meters (Electrical), Gas Measuring Apparatus, Recent Develop- ments (1912).....	Otten	.10	.20
"Minimum Charge" Reasonableness and Legal Right of (1916).....	Thomas	.10	.20
Misleading Statements, Committee Report (1916).....	Wyer, S. S.	1.00	2.00
More Intimate Relations Between Departments of the Gas Busi- ness (1915).....	Forstall, A. E.	.10	.20
Naphthalene, Problem of Today (1913).....	Ware	.10	.20
Naphthalene, Production and Prevention (1917).....	Strecker	.10	.20
Nomenclature, Committee Report (1916).....	Miller, T. D.	.25	.50
Oil Gas Plant, Portland, Oregon (1916).....	Harper	.10	.20
Oil Tar Separation, Recovery and Disposal (1914).....	Hall	.40	.80
Oils for Water Gas (1916).....	Wyant	.10	.20
Oils (Gas), a Study in (1916).....	Weisser	.20	.40
Orders and Complaints (1915).....	Downing-Pohlman	.40	.80
Photometrical Standard (Portable Electric) Construction and Use (1913).....	Clark, W. J.	.15	.30
Photometry, A Survey of American (1911).....	Sharp-Schaaf	.10	.20
Pipe Joints, Committee Report (1916).....	Bond	.10	.20
Pipe Joints, Committee Report (1915).....	Vincent	.10	.20
Pipe Standards, Committee Report (1913).....	Vincent	.25	.50
Pipe Standards, Specifications for (1911-1913).....	Morris	.15	.30
Pipe Threads, International Uniform System of, Committee Re- port (1913).....		.25	.50
Pneumatic Calking with Lead Wool of 30, 36 and 48-Inch Mains (1910).....	Gartley	.10	.20
Power Economies in Gas Plants, Committee Report (1913).....	Simpson, C. C., Jr.	.25	.50
Pressure (District), Apparatus Designed for Remote Control of (1910).....	Bruff	.20	.40

	Author	Net Price to Members	Net Price to Non-Members
Printing and Care of Printed Stock (1914).....	Kennedy	.15	.30
Public and the Lighting Companies, Cultivating Friendly Relations Between (1910).....	Bayfile	.15	.30
Public Relations (1915).....	Clark, W. J.	.10	.20
Public Relations, Committee Report (1916).....	Wrightington	.15	.30
Public Relations, Committee Report (1913).....	Klumpp	.10	.20
Public Service Commissions (1912).....	Klumpp	.20	.40
Purification, in British Undertakings (1915).....	Miller, A. S.	.10	.20
Purification, Material for Water, Gas, Analysis of (1912).....	Bell	.25	.25
Purification of Coal Gas, Liquid (1913).....	Uhlig	.10	.20
Purification of Water for Gas Making Purposes (1916).....	O'Neill	.10	.20
Purifier Installations (1914).....	Fulweiler	.50	1.00
Rate Fixing by Commission, Should Depreciation be Deducted from Plant Valuation (1914).....	Paige	.10	.20
Rates (1913).....	Humphreys, A. C.	.25	.50
Rates, Committee Report (1914).....	Miller, A. S.	.10	.20
Refractory Materials, Bibliography (1915).....	McClellan	.10	.20
Refractory Materials, Committee Report (1916).....		1.00	2.00
Residuals, Coal Gas, Feld Process (1914).....	Batten, J. W.	.10	.20
Retorts (Inclined) Operation (1914).....	Wagner	.10	.20
Retorts (Vertical), at Manchester, N. H. (1911).....	Huber	.10	.20
Retorts, Operation in Providence (1911).....	Africa	.10	.20
Selling Methods in British Undertakings (1915).....	Miller, Carroll	.10	.20
Services, Installation and Maintenance (1914).....	Goodenough	.25	.50
Spent Oxide, Removal of Sulphur from (1916).....	Duncan	.20	.40
Standard Tests, Committee Report (1916).....	Murphy	.10	.20
Sulphate of Ammonia, Plants for (1911).....	Wing	.10	.20
Sulphate of Ammonia, Production and Market (1911).....	Atwater	.10	.20
Sulphur (Organic), Removal by Reheating (1910).....	McIlravey	.10	.20
Supplying Large Buildings with Gas (1916).....	Papst	.15	.30
Supplying Large Buildings with Gas (1915).....	Fogg	.15	.30
Supplying Large Buildings with Gas (1914).....	Fogg	.15	.30
Surface Combustion (1911).....	Fogg	.50	1.00
Surface Combustion (1913).....	Prof. Bone	.25	.50
Tar and Tar Products (1911).....	Prof. Lucke	.25	.50
Thermal Decomposition of Hydrocarbons (1917).....	Whittaker	.10	.20
Unaccounted for Gas, Actual Leakage in (1911).....	Leslie	.25	.50
Water Gas, History of the Development of (1915).....	von Maur	.20	.40
Welding of High Pressure Mains (1914).....	Evans	.25	.50
Welding, Oxy-Acetylene, in Distribution Work (1916).....	Shattuck	.25	.50
	Wilde	.35	.70



In the December issue of the *Touchstone*, an art magazine especially devoted to home-building, appeared a short article on attractive household appliances displayed at the A. G. A. Exhibition.

Exactly fifteen hundred members and guests registered during the Second Annual Convention of the Association. Official delegates of member companies numbered one hundred and ninety-four, while nine hundred and two individual members registered. There were four hundred and four guests, all of whom were welcome and we hope that many of them will be found at future conventions as members of the Association.

AMERICAN GAS ASSOCIATION, Inc.

Current List No. 41—January, 1921

Where information is not secured from company receiving increase, the source of information is noted in brackets. See Cumulative List No. 6, of September, 1920, for explanation of abbreviations. This list includes only increases reported as secured subsequent to November.

ALABAMA

Birmingham: Ry., Light & Power Co. reports old rate: 1st 10 MCF \$1.00—next 10 MCF 90¢—next 10 MCF 80¢—over 30 MCF 75¢ per M—disc. 5¢ per M 10 days—S. Chge. 50¢ per meter per month. New rate effective Nov. 1, 1920: 1st 10 MCF 93¢—next 10 MCF 83¢—next 10 MCF 73¢—over 30 MCF 63¢ per M—disc. and M. M. Chge. unchanged. P. P. Meters \$1.00 per M. Present rate is a decrease owing to the fact that gas now furnished is coke oven instead of manufactured gas.

Mobile: Co. reports second increase effective Nov. 1, 1920. New rate: 1st 10 MCF 19¢ gross per CCF, disc. 1¢ per C 10 days—next 15 MCF 16¢ net—next 25 MCF 12½¢—over 50 MCF 11½¢ net per CCF. M. M. Chge. \$1.00 per customer meter.

CALIFORNIA

Lodi: Sacramento Gas Co. reports old rate: 1st 6 CCF or less 75¢—next 24 CCF \$1.20 per M—next 7 MCF \$1.00—next 10 MCF 80¢—over 20 MCF 70¢ per M with Surcharge of 10¢ per M. New rate effective Oct. 25, 1920: 1st 4 CCF or less \$1.25—next 26 CCF \$2.25 per M—next 7 MCF \$2.00—next 10 MCF \$1.85—over 20 MCF \$1.70 per M.

Merced: San Joaquin Light & Power Corp. reports increase effective Aug. 26, 1920. Old rate: 1st 4 MCF \$1.50—next 6 MCF \$1.25—over 10 MCF \$1.00 net per M. M. M. Chge. 75¢ per meter per month. New rate: 1st 5 CCF or less \$1.25 net—next 25 CCF \$2.00—next 7 MCF \$1.80—next 10 MCF \$1.60—over 20 MCF \$1.40 net per M. Hotel and Industrial: 1st 20 MCF \$1.40—over 20 MCF \$1.20 net per M. M. M. Chge. \$25.00 per meter per month.

Selma: San Joaquin Light & Power Corp. reports increase effective Aug. 26, 1920. Old and new rates same as Merced throughout.

Ventura: Southern Counties Gas Co. reports old rate effective Dec. 10, 1919: 1st 2 MCF \$1.25—next 3 MCF \$1.00—next 5 MCF 90¢—next 10 MCF 80¢—next 30 MCF 70¢—over 50 MCF 60¢ per M. M. M. Chge. \$1.00. New rate effective Sept. 20, 1920: 1st 3 MCF \$2.00—next 7 MCF \$1.80—next 10 MCF \$1.60—over 20 MCF \$1.40 per M. M. M. Chge. \$1.50 per meter per month. Supplies Oxnard, Fillmore and Santa Paula at same rate.

DISTRICT OF COLUMBIA

Washington: Co. reports fourth increase effective Nov. 1, 1920. New rate: 1st 100 MCF \$1.32—next 200 MCF \$1.27—next 200 MCF \$1.22—next 250 MCF \$1.17—next 250 MCF \$1.12—over 1000 MCF \$1.07—penalty 10¢ per M 10 days. In force to Mar. 18, 1921.

ILLINOIS

Canton: Co. reports fourth increase effective Nov. 1, 1920. New rate: 1st 2 MCF \$1.90—next 3 MCF \$1.80—next 5 MCF \$1.65—over 10 MCF \$1.45 per M—disc. 10¢ per M 10 days. M. M. Chge. 75¢ per meter per month. P. P. Meters 85¢ per M.

Centralia: Co. reports second increase effective Nov. 1, 1920. New rate: 1st 5 MCF \$1.95—next 15 MCF \$1.70—next 40 MCF \$1.45—over 60 MCF \$1.20 per M—disc. 10¢ per M.

Princeton: Co. reports second increase effective Nov. 1, 1920. New rate: \$2.10 gross, \$2.00 net per MCF. Industrial \$1.85 gross, \$1.75 net per MCF. M. M. Chge. 75¢.

IOWA

Des Moines: Co. reports third increase effective Oct. 1, 1920. New rate: \$1.50 per MCF—10¢ penalty 10 days. Rate effective under order of Federal Court on application for injunction against enforcement of ordinance of City Council fixing rate at \$1.05 flat for 22 C. P. gas. Trial pending. Calorific standard unchanged.

Fort Madison: Gas Light Co. reports increase effective June 1, 1920. New rate: 1st 5 MCF \$2.05 gross, \$1.85 net per MCF—over 5 MCF \$1.65 net per M. Old rate: 40¢ less each rate.

Perry: Gas Works reports old rate: \$1.50 gross, \$1.35 net per MCF. First increase effective Jan. 1, 1920: 1st 2 MCF \$1.75—next 3 MCF \$1.45—over 5 MCF \$1.35 per MCF—disc. 10¢ per M 10 days. S. Chge. 50¢ per meter per month. P. P. Meters \$2.25 per M. Second increase effective Nov. 1, 1920. New rate: 1st 5 MCF \$1.75—next 5 MCF \$1.65—over 10 MCF \$1.50 per M—10¢ per M penalty 10 days. S. Chge. \$1.00 per meter per month.

KENTUCKY

Danville: Co. reports second increase effective Oct. 1, 1920. New rate: \$1.90 net per MCF—over 15 MCF 20% disc.

KANSAS

Emporia: Gas Co. reports old rate: 1st 2 MCF \$1.60 net—next 3 MCF \$1.40—next 5 MCF \$1.20—next 10 MCF \$1.10—next 5 MCF \$1.00—over 25 MCF 75¢ net per M. M. M. Chge. 75¢. First increase effective Mar. 1, 1920: 1st 10 MCF \$1.75—next 10 MCF \$1.50—next 10 MCF \$1.35—next 10 MCF \$1.25—over 40 MCF \$1.20 net per M. R. T. S. Chge. 75¢. Second increase effective Oct. 15, 1920. New rate: 1st CCF \$1.25—next 24 CCF 25¢ per C—next 25 CCF 24¢—next 25 CCF 22½¢—next 25 CCF 20¢—next 25 CCF 17½¢—next 25 CCF 15¢—over 15 MCF 13½¢ per CCF—10% penalty 10 days. M. M. Chge. \$2.00. B. t. u. reduced from 590 to 500.

MAINE

Lewiston: Co. reports second increase effective Nov. 2, 1920. New rate: 1st 10 MCF \$1.90 less 10¢ per M 15 days—next 10 MCF \$1.75 net—next 10 MCF \$1.65—over 30 MCF \$1.50 net per M. P. P. Meters \$1.85 per M.

MARYLAND

Baltimore: Co. reports second increase effective Oct. 1, 1920. New Primary rate: 85¢ gross, 75¢ net per MCF. Secondary rate: 60¢ gross, 50¢ net per MCF unchanged. B. t. u. reduced from 550 to 500. After three months temporary trial made permanent.

MASSACHUSETTS

Attleboro: Co. reports fourth increase effective Nov. 1, 1920. New rate: \$1.80 gross, \$1.60 net per MCF.

Fall River: Co. reports third increase effective Oct. 1, 1920. New rate: \$1.30 gross, \$1.25 net per MCF. Somerset \$1.50 gross, \$1.45 net. Tiverton Gas Co. \$1.05 per MCF. Customers using 2,500 MCF or more per year an extra disc. of 10¢ per M. Charges 20¢ per month per 3 or 5 lt. meter where no gas is used—larger sizes more.

Greenfield: Co. reports fourth increase effective Nov. 1, 1920: 1st 10 MCF \$2.30—next 20 MCF \$2.20—over 30 MCF \$2.10 per M—disc. 10¢ per M. Ind.: 1st 200 MCF \$1.75—next 100 MCF \$1.65—over 300 MCF \$1.55 per M—same disc.

Norwood: Co. reports second increase effective Oct. 13, 1920. New rate: 1st CCF \$1.02 gross, 90¢ net—next 99 CCF 26¢ gross, 24¢ net—over 100 CCF 23½¢ gross, 21½¢ net per C 15 days. M. M. Chge. 50¢ per month.

Worcester: Co. reports fourth increase effective May 15, 1920: 1st 25 MCF 16¢ per CCF—next 25 MCF 15½¢—next 50 MCF 15¢—over 100 MCF 14½¢ per C—disc. 1¢ per CCF. M. M. Chge. 50¢ per meter per month using less than \$700 per year. Fifth increase effective Oct. 15, 1920: 1st 25 MCF 17½¢ per CCF—next 25 MCF 17¢—next 50 MCF 16½¢—over 100 MCF 16¢ per C—disc. and M. M. Chge. unchanged.

MICHIGAN

Petosky: Co. reports third increase effective Aug. 1, 1920. New rate: \$2.00 net per MCF. M. M. Chge. 45¢.

MINNESOTA

Rochester: Co. reports second increase effective Sept. 1, 1920. New rate: 1st 10 MCF \$1.85—next 10 MCF \$1.75—next 10 MCF \$1.70—next 30 MCF \$1.65—over 60 MCF \$1.55 per M—disc. 10¢ per M 10 days. M. M. Chge. 75¢.

MISSOURI

St. Joseph: Co. reports second increase effective Nov. 15, 1920. New rate: 1st 50 MCF \$1.60—next 50 MCF \$1.45—over 100 MCF \$1.20 per M. Penalty 5¢ per M 10 days. S. Chge. 5 lt. or less 50¢—10 lt. 75¢—20 and 30 lt. \$1.00—over 30 lt. \$1.25 per meter per month. Increase granted for seven months.

NEW JERSEY

Bridgeport: Co. reports third increase effective Oct. 28, 1920. New rate: 1st 25 MCF \$1.70—next 25 MCF \$1.65—next 25 MCF \$1.60—next 25 MCF \$1.55 per M.

Egg Harbor City: Co. reports second increase effective Aug. 1, 1920, of 40¢ additional surcharge making Dom. rate \$2.10, Ind. \$1.80 per MCF—disc. 5% on bills of \$1.00 and over, before 25th.

Metuchen: Gas Light Co. reports old rate: \$1.10 gross, 90¢ net per MCF. New rate effective May 1, 1920: \$1.15 net per MCF. S. Chge. 50¢ per meter per month.

Ocean City: City Gas Lt. Co. reports old rate \$1.50 per MCF. First increase effective July 1, 1919, adding meter surcharge \$3.00 per year for 3 or 5 lt. meter and 1¢ added per lt. larger sizes. Second increase effective Aug. 1, 1920. New rate: \$1.90 net per MCF plus above Meter Surcharge.

Rahway: Gas Lt. Co. reports increase effective June 1, 1920. New rate: \$1.15 net per MCF. Old rate: \$1.10 gross, 90¢ net per MCF.

NEW YORK

Brooklyn: Kings County Lighting Co. reports increase effective Oct. 23, 1920. New rate: \$1.50 net per MCF. Old rate: 95¢ per MCF. Increase secured through U. S. District Court of Southern District of the State of N. Y. Decision of Justice Greenbaum appealed to the Appellate Division of Supreme Court of the State of New York. Caes in the Appellate Division not heard.

Catskill: Upper Hudson El. & Rd. Co. reports old rate: \$1.90 gross, \$1.50 net per MCF. Fuel \$1.50 net. First increase effective Sept. 15, 1918: 1st 3 MCF \$2.10—next 7 MCF \$2.05—next 20 MCF \$2.00—over 30 MCF \$1.90 per M—disc. 10¢ per M. Second increase effective Aug. 24, 1920. New rate: 1st 3 MCF \$2.70—next 7 MCF \$2.65—next 20 MCF \$2.60—over 30 MCF \$2.50 per M—disc. 20¢ per M.

Flushing: New York and Queens Gas Co. reports increase effective Nov. 19, 1920. New rate: \$1.25 per MCF. S. Chge. 75¢ per month. Old rate: \$1.00 per M. Judge Mayer, U. S. District Court, declared \$1.00 rate confiscatory and enjoined Attorney General, Public Service Commission and District Attorney from interfering with new rate. Defendants will appeal to U. S. Supreme Court.

Geneva: Co. reports second increase effective July 1, 1920. New rate: 1st MCF \$1.85—next MCF \$1.60—next 18 MCF \$1.45—next 80 MCF 95¢—next 900 MCF 90¢—next 1000 MCF 85¢—over 2000 MCF 80¢ per M. Delayed payment 50¢ plus 2% of bill if not paid when due.

Oswego: Co. reports fourth increase effective Oct. 2, 1920. S. Chge. 50¢ per month per customer plus commodity chge. 1st 10 MCF 10¢ per CCF—next 10 MCF 18¢—next 10 MCF 17¢—over 30 MCF 16¢ per CCF. This rate filed because of court injunction against last rate.

Rochester: Gas Co. reports fifth increase effective Oct. 31, 1920. New rate: 1st 20 MCF \$1.30—next 30 MCF \$1.20—next 50 MCF \$1.10—next 100 MCF \$1.00—next 300 MCF 90¢—next 500 MCF 85¢—over 1000 MCF 80¢ per M. S. Chge. 40¢ per consumer per month.

PENNSYLVANIA

Doylestown: Bucks County Public Service Co. reports increase effective Jan. 1, 1921. New rate: 1st 5 MCF 22¢ per CCF—next 5 MCF 20¢—next 5 MCF 18¢—next 5 MCF 16¢—over 20 MCF 15¢ per CCF. R. T. S. Chge. 75¢ per month per consumer. Old rate: 3¢ per CCF less with same R. T. S. Chge.

Jenkintown: Correction: Service Charge reported in Current List No. 40 applies only to P. P. Meter consumption.

SOUTH CAROLINA

Rock Hill: Gas Co. reports increase effective Nov. 1, 1920. New rate: 1st 10 MCF 24¢ per CCF—next 5 MCF 23¢—next 5 MCF 22¢—next 5 MCF 21¢—next 5 MCF 20¢—next 5 MCF 19¢—next 5 MCF 18¢ per C—over 40 MCF 17¢ per CCF. M. M. Chge. \$1.00. Old rate: 1st 10 MCF \$1.75—next 5 MCF \$1.60—next 5 MCF \$1.50—next 10 MCF \$1.30—next 10 MCF \$1.10—over 40 MCF 90¢ per M—disc. 10¢ per M. M. Chge. 50¢.

SOUTH DAKOTA

Watertown: Co. reports second increase effective Oct. 1, 1920. New rate is \$2.50 per MCF pending new equipment, after completion a rate will be made that will insure 6½% on money invested. \$10.00 deposit for meter or 25¢ per month rental. M. M. Chge. 50¢.

TENNESSEE

Clarkeville: Kentucky Public Service Co. reports increase effective Nov. 1, 1917. Old rate: \$1.40 gross, \$1.25 net per MCF. Fuel rate 90¢ net per MCF. New rate: \$1.75 gross, \$1.50 net per MCF. M. M. Chge. 50¢ per month. Second increase effective Aug. 1, 1920. New rate: \$1.75 gross, \$1.70 net per MCF. M. M. Chge. unchanged.

Johnson City: Co. reports third increase effective Sept. 1, 1920. New rate: \$2.10 gross, \$2.00 net per MCF. M. M. Chge. 50¢.

Memphis: Co. reports second increase effective Oct. 28, 1920. New rate: \$2.00 gross, \$1.75 net, 10 days. M. M. Chge. 90¢ per month. Rate temporary pending valuation.

TEXAS

Abileni: G. & E. Co. (Natural) reports increase effective Oct. 1, 1920. New rate: 75¢ per MCF—disc. 10% D. P. Old rate: 50¢ net per MCF.

Cisco: Gas & Electric Co., same rates as Abileni.

WEST VIRGINIA

Grafton: Pittsburgh and W. Va. Gas Co. distributing Natural Gas in 9 counties of W. Va. reports increase effective . . . Old rate: 32¢ per MCF—disc. 2¢ per M. Rate in Taylor County and town of Industrial 2¢ per M less. New rate: 1st 10 MCF 42¢—next 10 MCF 47¢—next 5 MCF 52¢—over 25 MCF 57¢ per M—disc. 2¢ per M, D. P. Ind. and drilling service 42¢ per M—2¢ disc. R. T. S. Chge. 50¢ per meter per month.



(Continued from page 38)

still a complete survey would show not more than a 15 per cent. proportion of losses to premiums paid in the industry.

When it is realized from the foregoing statements what a tremendous surplus (85 per cent.) the insurance companies are drawing from the industry we are sure our members will require no urging to cooperate fully with such a committee by furnishing complete statistics covering their own situation. With such complete statistics available every company could go to their local Underwriters and probably get a substantial reduction.

But before this cooperation can be rendered it will be necessary for all companies to make a study of their own situation and particularly the losses they have sustained. Determine what these have amounted to for your company and whether your proportion of losses to premiums paid are as strikingly low as those cited.

In the discussion at the Convention the question of self insurance was touched upon and the method of accruing the reserve funds in this connection was an-

other indication of the small loss sustained from gas company fires. One company followed a method of having a survey made of their insurable property, ascertaining the cost of insurance in an old line company and then setting aside in their reserve each year an amount equal to the annual premium which they would have had to pay. Another company followed a similar procedure but found after some years experience it was necessary to set aside only one-half of the annual premium. Another company computed their actual losses over a period of years, divided this amount by the number of months in the period and then set this amount aside on a monthly basis. All these reserves are available for investment in standard securities, thus representing a source of income to the company.

We believe it will pay you to determine whether you are paying too much for your own insurance and we know it will be of great benefit to the industry to place yourself in a position to furnish accurate statistics to the Association's Committee when it is appointed.

Employment Bureau

SERVICES REQUIRED

WANTED—Man with experience in the selection of leather and the manufacture of gas meter diaphragms, to take charge of and develop a shop for the making of diaphragms. A good opportunity for the right man. Address—The Laclede Gas Light Company, 1017 Olive Street, St. Louis, Missouri.

Key No. 9

WANTED—Manager of Gas Plant in small western city; one who can make success of coal gas, distributing system and commercial department. Plant new; rates profitable; very attractive residence city, with unusual advantages and beautiful surrounding country. Give in confidence, experience, salary, references. Address—A. G. A.

Key No. 10

WANTED—A syndicate operating a number of small coal and water gas plants requires an assistant in the Engineering Department. Must be an accurate and rapid draftsman with some experience in plant construction and operation. Unusual opportunity for training and experience with good future. In reply state fully experience, qualifications and salary desired, in order for application to receive attention. Address—A. G. A.

Key No. 11

WANTED—Sales Representative for Southeastern and South Atlantic States for a gas appliance line that has possibilities in that territory. Experienced gas appliance salesman preferred. Give all possible information in reply. Reply care of A. G. A.

Key No. 12

WANTED—Foreman for Carbureted Water Gas Plant in a city of 100,000 population. U. G. I. sets. Opportunity for advancement. Apply stating experience and wages expected. Address A. G. A.

Key No. 13

WANTED—Man with sufficient experience to act as Foreman of Gas Department. Forty-five miles medium high pressure system; 2,600 service connections. Should have experience on meters, and house governor repairs, also water heater and range installation work. Give full particulars in first communication as to experience, salary desired, age, married or single, and former employers. Location New England. Address A. G. A.

Key No. 14

SERVICES OFFERED

WANTED—Position as Manager or Assistant in medium size town. Has had 15 years experience in coal and water gas and electric operation. Technical graduate. Any location. Address—American Gas Association.

Key No. 109

WANTED—Position as Industrial Power and Fuel Engineer. Technical engineer and salesman of excellent qualifications for industrial power and fuel sales. Now employed \$3000. Address—A. G. A.

Key No. 111

WANTED—Position as Superintendent of a Coal and Water Gas Plant having a practical experience in the manufacture of same. Age 44 years and married. Salary \$250 per month. A-1 references, can take up duties at once. Address A. G. A.

Key No. 112

WANTED—Position as executive in a local office of a gas or a combination gas and electric company. Have had practical experience in all branches of commercial utility work. Have been successful in dealing with the public and promoting good will of utility companies. Educated in commercial and accounting methods as compiled by the N. C. G. A. and N. E. L. A. Well acquainted in office routine and very exact on details and execution of same. Address A. G. A.

Key No. 114

WANTED—A position with a gas appliance company having need for an all around man experienced in development and selling. Can furnish best of references. Address—A. G. A.

Key No. 116

POSITION WANTED—As General Superintendent or Engineer of good-sized company, by well known technical graduate of 18 years connection with the gas business. Experienced in every branch of the industry and has made good. Has been superintendent of one large company and manager of other smaller ones. Has himself laid mains, made gas, set ranges, purchased and sold appliances, etc., so that he knows the difficulties and the things to avoid. Noted for his ability to handle men. Well read and up-to-date in every particular. Address—A. G. A.

Key No. 117

WANTED—Position as manager in medium size town or as gas engineer by technical man with 9 years experience in all branches. Both syndicate and private operation. Has shown exceptionally good results. Address A. G. A.

Key No. 118

WANTED—Position as manager or superintendent with gas company in North Eastern States. Eight years experience in both coal and water gas. Married. Good references. Address A. G. A.

Key No. 119

WANTED—Position as General Manager of Gas or Gas and Electric Company in city of size or as assistant to chief executive in very large company. Operation, management, finance, rates and capitalization by Public Utility engineer of my broad experience. Address A. G. A.

Key No. 120



Employment Bureau

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Key No. 120.

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AMERICAN GAS ASSOCIATION, INC.

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